

PROGRAM SCHEDULE

MONDAY, APRIL 10, 2000

HUMAN BIOLOGY ASSOCIATION FUNCTIONS

- 5:00PM-7:00PM Registration
 Salon Alcove & Executive 5 Foyer
- 6:00PM-11:00PM Executive Committee Meeting / Dinner
 Boardroom

PALEOPATHOLOGY ASSOCIATION FUNCTIONS

- 5:00PM-7:00PM Registration
 Salon Alcove & Executive 5 Foyer

TUESDAY, APRIL 11, 2000

- 7:00AM-9:00AM *Human Biology* Editorial Board Breakfast
 Boardroom

HUMAN BIOLOGY ASSOCIATION FUNCTIONS

- 8:00AM-6:00PM Registration
 Salon Alcove & Executive 5 Foyer
- 8:00AM-6:00PM Podium Sessions
 Texas Ballroom B
- 8:00AM-6:00PM Poster Session
 Rose Garden
- 8:00PM-10:00PM Reception and Cash Bar
 Executive Salon 5

PALEOPATHOLOGY ASSOCIATION FUNCTIONS

- 8:00AM-6:00PM Registration
 Salon Alcove & Executive 5 Foyer
- 8:00AM-6:00PM Podium Sessions
 Executive Salon 5

8:00AM-6:00PM	Poster Session Rose Garden
6:00PM-8:00PM	Cocktails and Dinner Texas Ballroom C

WEDNESDAY, APRIL 12, 2000

AMERICAN ASSOCIATION OF PHYSICAL ANTHROPOLOGISTS FUNCTIONS

8:00AM-5:00PM	Registration Grand Foyer
8:00AM-5:00PM	AAPA Executive Committee Meeting Boardroom
12:00PM-2:00PM	<i>American Journal of Physical Anthropology</i> Editorial Board Luncheon Director's Room 2
6:30PM-7:45PM	Career Development Committee Workshop - " <i>Getting that First Professional Position</i> ", Participants: Douglas Crews (Ohio State University), Jeffrey Froehlich (University of New Mexico), Elizabeth Miller (California State University, Los Angeles), Leanne Nash (Arizona State University), Alan Ryan (Ross Laboratories)
8:00PM-11:00PM	Annual Reception & Cash Bar Texas Ballroom

HUMAN BIOLOGY ASSOCIATION FUNCTIONS

7:30AM-9:00AM	<i>American Journal of Human Biology</i> Editorial Board Breakfast Director's Room 2
8:00AM-6:00PM	Registration Salon Alcove & Executive 5 Foyer
8:00AM-6:00PM	Podium Sessions Texas Ballroom B
8:00AM-5:00PM	Poster Session Rose Garden

12:30PM-2:15PM Annual Awards Luncheon
Executive Salon 4

5:00PM-6:30PM Business Meeting
Texas Ballroom B

PALEOPATHOLOGY ASSOCIATION FUNCTIONS

8:00AM-6:00PM Poster Session
Rose Garden

8:00AM-6:00PM Podium Sessions
Executive Salon 3

THURSDAY, APRIL 13, 2000

AMERICAN ASSOCIATION OF PHYSICAL ANTHROPOLOGISTS FUNCTIONS

8:00AM-5:00PM Registration
Grand Foyer

8:00AM-5:00PM Books/Exhibits
Executive Salon 5

8:00AM-5:00PM Poster Sessions
Rose Garden & Rose Garden Foyer; see below for details

8:00AM-5:00PM Podium Sessions
Texas Ballrooms A, B, & C, Executive Salon 2; see below for details

6:00PM-7:30PM Plenary Lecture, John VandeBerg, Southwest Foundation for Biomedical
Research, "*Biological Anthropology at the Frontiers of Biomedical
Research: Genetic Research on Chagas' Disease*"
Texas Ballrooms A & B

AMERICAN ASSOCIATION OF ANTHROPOLOGICAL GENETICS FUNCTIONS

7:30PM-8:30PM Business Meeting
Executive Salon 4

DENTAL ANTHROPOLOGY ASSOCIATION FUNCTIONS

7:30PM-8:30PM Business meeting

Executive Salon 2

PRIMATE BIOLOGY AND BEHAVIOR INTEREST GROUP

7:30PM-8:30PM Business Meeting
Director's Room 2

WILEY-LISS RECEPTION

8:30PM-11:30PM Texas Ballroom

FRIDAY, APRIL 14, 2000

AMERICAN ASSOCIATION OF PHYSICAL ANTHROPOLOGISTS FUNCTIONS

8:00AM-5:00PM Registration
Grand Foyer

8:00AM-5:00PM Books/Exhibits
Executive Salon 5

8:00AM-6:00PM Podium Sessions
Texas Ballrooms A, B, & C, and Executive Salon 2; see below for details

8:00AM-6:00PM Poster Sessions
Rose Garden & Rose Garden Foyer; see below for details

12:00PM-2:00PM Luncheon. Speaker: Dr. Clifford Jolly, New York University, "*A Proper Study of Mankind*"
Fiesta Pavilion

8:00PM-11:00PM Business Meeting
Texas Ballroom B

AMERICAN DERMATOGLYPHICS ASSOCIATION FUNCTIONS

6:00PM-7:00PM Business Meeting
Executive Salon 2

SATURDAY, APRIL 15, 2000

AMERICAN ASSOCIATION OF PHYSICAL ANTHROPOLOGISTS FUNCTIONS

8:00AM-1:00PM	Registration Grand Foyer
8:00AM-1:00PM	Books/Exhibits Executive Salon 5
8:00AM-5:00PM	Podium Sessions Texas Ballrooms A, B, & C, Executive Salon 2; see below for details
8:00AM-5:00PM	Poster Sessions Rose Garden & Rose Garden Foyer; see below for details
5:30PM-7:30PM	Awards Reception and Cash Bar River Plaza
8:00PM-12:30AM	Barbecue and Dance at Rio Cibolo Ranch (Reservations Required)

SESSION 1: TEXAS A

HUMAN BIOLOGY I / GENETICS I: "PERSPECTIVES ON THE GENETICS OF AGING". SYMPOSIUM.

This symposium will present a variety of research perspectives related to genetics of aging. Several themes that encompass the anthropological approach have been incorporated into this symposium — non-human primate vs. human studies, evolutionary vs. molecular genetic approaches, mortality vs. reproductive senescence, and cause of death vs. longevity as the dependent variable. Twelve papers are organized into four groups, plus an introduction and a discussion. The first two papers concern methodological issues of anthropological studies of the genetics of aging, sampling and the problems of long term prospective studies. The next three papers examine the evolutionary aspects of senescence (both mortality and reproductive). The third group of three papers examines the genetics of a variety of degenerative diseases, while the forth set of four papers represent studies of the genetics of overall longevity.

Organizer

and Chair: T.B. Gage, State University of New York, Albany.

Co-sponsored by the American Association of Anthropological Genetics and Human Biology Association.

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| 8:00 AM | Perspectives on the genetics of aging: An introduction. T.B. Gage, State University of New York, Albany. |
| 8:15 | Ascertainment bias of control samples in studies of the genetics of aging. R. Chakraborty, O. Schwalb, P. Olofsson, M. Kimmel, University of Texas School of Public Health, Houston, Rice University, Houston. |
| 8:30 | Methods for studying late onset diseases of aging. C.C. Plato, R.M. Garruto, University of California San Diego, La Jolla, Binghamton University, State University of New York, Binghamton. |
| 8:45 | The aging human population: The potential impact of demographic changes over historical time on the genetic well being of our species. S. Plectcher, Max Planck Institute for Demographic Research, Rostock, Germany, R.D. Hoppa, University of Manitoba, Winnipeg, Canada. |
| 9:00 | Human Longevity: Nature vs. Nurture ~ Fact or Fiction. B.A. Carnes, University of Chicago, IL. |
| 9:15 | Female reproductive aging. D.J. Holman, K.A. O'Connor, University of Washington, Seattle, J.W. Wood, Pennsylvania State University, University Park. |
| 9:30 | INTERMISSION |
| 9:45 | Genetics of age related changes in cardiovascular disease risk factors. B. Towne, S.S. Guo, W.C. Chumlea, A.F. Roche, R.M. Siervogel, Wright State University, Dayton, OH. |

THURSDAY, APRIL 13, 2000

SESSION 1 / SESSION 2

- 10:00 Insulin sensitivity and aging. B.D. Mitchell, Southwest Foundation for Biomedical Research, San Antonio.
- 10:15 Aging and the genetics of adiposity: Insights from 50 years of the Framingham Heart Study. C.E. Jaquish, S. Coady, R.R. Fabsitz, National Heart Lung, and Blood Institute, NIH, Bethesda, M.G. Larson, L.A. Cupples, R.H. Myers, Boston University, Boston, MA, D. Levy, National Heart, Lung, and Blood Institute, NIH, Bethesda, MD.
- 10:30 Biological aging and survivorship among Mennonites of the Midwest. M. H. Crawford, University of Kansas, M. Uttley, Lander University, R.Duggirala, University of Texas Health Science Center, San Antonio.
- 10:45 Mutations, parental age, and offspring longevity: New ideas and findings. L.A. Gavrilov, N.S. Gavrilova, G.N. Evdokushkina, V.G. Semyonova, University of Chicago, IL.
- 11:00 Mechanisms of familial transmission of human longevity. N.S. Gavrilova, L.A. Gavrilov, V.G. Semyonova, G.N. Evdokushkina, University of Chicago, IL.
- 11:15 Public and private genetic modulations of the pathobiology of senescence. G.M. Martin, University of Washington, Seattle.
- 11:30 DISCUSSANT: K.Weiss, Pennsylvania State University, University Park.
- 11:45 Discussion with R. Li, National Institute on Aging, NIH, Bethesda, MD.

SESSION 2: TEXAS B

PALEOANTHROPOLOGY I: PLIO-PLEISTOCENE HOMINIDS. CONTRIBUTED PAPERS.

- Chair:* C.A. Lockwood, Arizona State University, Tempe.
- 8:00 AM New research in the Kibish Formation, southern Ethiopia. Z. Assefa, State University of New York, Stony Brook, F. Brown, B. Passey, University of Utah, Salt Lake City, J.G. Fleagle, State University of New York, Stony Brook, S. Yirga, Addis Ababa University, Ethiopia.
- 8:15 A newly discovered early Pliocene hominid bearing paleontological site in the Mulu Basin, Ethiopia. Y. Haile-Selassie, University of California, Berkeley, B. Asfaw, Rift Valley Research Services, Addis Ababa, Ethiopia.
- 8:30 Clades and hominid postcranial fossils. K.E. Coffing, H.M. McHenry, University of California, Davis.

- 8:45 The hominoid glenohumeral joint and the question of climbing in *Australopithecus*. B.A. Rosenman, Kent State University, Kent, OH, R.A. Walker, New York Chiropractic College Seneca Falls.
- 9:00 Functional anatomy of the lumbar vertebral column in modern *Homo sapiens*, great apes and australopithecines. S.A. Martelli, P. Schmid, Universität Zürich, Switzerland.
- 9:15 Early hominin limb proportions: Is 'Lucy' significantly different from her 'Children'? B.G. Richmond, George Washington University, Washington, DC, L.C. Aiello, University College London, England, B.A. Wood, George Washington University, Washington DC.
- 9:30 Postcranial variation in early African *Homo*. M.I. Mayor, State University of New York, Stony Brook.
- 9:45 New endocast reconstructions of *Australopithecus africanus* (type II and type III) from Sterkfontein, S.A. M.S. Yuan, R.L. Holloway, Columbia University, New York, NY.
- 10:00 INTERMISSION
- 10:15 Extreme measures of SK 1585 brain endocast: The endocranial capacities of robust australopithecines revisited. R.L. Holloway, M.S. Yuan, Columbia University, New York, NY, S. Marquez, D.C. Broadfield, City University, New York, K. Mowbray, Rutgers University, NJ, AMNH.
- 10:30 The evolution of the frontal cortices in the Plio-Pleistocene: New evidence. K. Semendeferi, A. Lu, A.M. Desgouttes, University of California, San Diego, La Jolla, H. Damasio, University of Iowa, Iowa City.
- 10:45 Basicranial architecture of Plio-Pleistocene hominins. F. Spoor, University College London, UK.
- 11:00 Morphometric analysis of craniofacial shape and growth patterns in *Australopithecus africanus*. R.R. Ackermann, Washington University, St. Louis, MO, G.E. Krovitz, George Washington University, Washington, DC.
- 11:15 Recently recovered hominid fossils from the site of Swartkrans. D.J. De Ruiter, University of the Witwatersrand, Johannesburg, South Africa, C.K. Brain, Transvaal Museum, Pretoria, South Africa.
- 11:30 Taxonomic affinity of a new specimen from Cooper's, South Africa. C.M. Steininger, L.R. Berger, University of the Witwatersrand, Johannesburg, South Africa.

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SESSION 2 / SESSION 3

- 11:45 The phylogenetic relationships of recently described early hominid species. F.E. Grine, State University of New York, Stony Brook, D.S. Strait, The George Washington University, Washington, DC.

SESSION 3: TEXAS C

PRIMATES I: BEHAVIOR & THEORY. CONTRIBUTED PAPERS.

Chair: J.E. Lambert, University of Oregon, Eugene.

- 8:00 AM Aging rhesus macaques: Male and female social behaviors. J. Corr, D.E. Crews, The Ohio State University, Columbus.
- 8:15 Social behavior of aged lemurs. L.L. Taylor, University of Miami, Coral Gables, FL.
- 8:30 Sociality in a nocturnal primate? S.L. Gursky, City University of New York-Queens College, Flushing, NY.
- 8:45 Social interactions between wild infant and adult male white-faced capuchin monkeys (*Cebus capucinus*). K.C. Mackinnon, University of California, Berkeley.
- 9:00 The effect of group size on proximity and patterns of affiliation in the Milne-Edward's sifaka (*Propithecus diadema edwardsi*) in Ranomafana National Park, Madagascar. R.G. Seltzer, Kent State University, OH, P.C. Wright, State University of New York, Stony Brook.
- 9:15 The use of social and ecological information in primate foraging decisions. J.C. Bicca-Marques, P.A. Garber, University of Illinois, Urbana.
- 9:30 Evolution and origin of primate social organization. A reconstruction. A.E. Müller, U. Thalmann, University of Zürich, Switzerland.
- 9:45 Social interactions among female hamadryas baboons (*Papio hamadryas hamadryas*): Implications for the evolution of hamadryas baboon social organization. L. Swedell, Columbia University, NYCEP, New York.
- 10:00 INTERMISSION
- 10:15 Reproductive strategies and paternity in wild Japanese macaques on Yakushima Island, Japan. J. Soltis, University of California, Los Angeles, R. Thomsen, University of Munich, Germany, O. Takenaka, Kyoto University, Japan.
- 10:30 The variable evolution of pairbonds in human and nonhuman primates. A. Fuentes, Central Washington University, Ellensburg, WA.

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SESSION 3 / SESSION 4

- 10:45 Lifetime likelihood of becoming an alpha male for Japanese macaque males. D.S. Sprague, National Institute of Agro-Environmental Sciences, Tsukuba, Japan, S. Suzuki, Kyoto University, Japan.
- 11:00 Bipedality in chimpanzees (*Pan troglodytes*) and bonobos (*Pan paniscus*): Testing hypothesized selection pressures. E.N. Videan, W.C. McGrew, Miami University, Oxford, OH.
- 11:15 Beyond dominance: A theory of power. R.J. Lewis, Duke University, Durham, NC.
- 11:30 An experimental study of deception in ringtailed lemurs. R.O. Deaner, Duke University, Durham, NC.
- 11:45 Cheaters never prosper: Social mechanisms maintaining honest signals of status in vervet monkey scrotal color. M.S. Gerald, University of California, Los Angeles.

SESSION 4: EXECUTIVE SALON II

SKELETAL BIOLOGY I / HUMAN BIOLOGY II: GROWTH, VARIATION, AND BIOMECHANICS, CONTRIBUTED PAPERS.

Chair: T.D. Smith, Slippery Rock University, Slippery Rock, PA.

- 8:00 AM Associations between non-dietary variables and anthropometric indices in low-income U.S. urban Latino children. D.A. Himmelgreen, University of South Florida, Tampa, R. Perez-Escamilla, University of Connecticut, Storrs, Y. Peng, Hispanic Health Council, Hartford, CT.
- 8:15 Economic, cultural, and demographic factors affecting children's growth and development in the Okavango Delta, Botswana. J. Bock, S.E. Johnson, University of New Mexico, Albuquerque.
- 8:30 Greater female tibial growth in high altitude Tibetan children. S.M. Bailey, Tufts University, Medford, MA, X.M. Hu, S. China Normal University, Guangzhou.
- 8:45 Physical performance and body size among Australian aboriginal children and adolescents from the Central Desert. M. Lavelle, University of Rhode Island, Kingston, M. Henneberg, University of Adelaide Medical School, Australia.
- 9:00 The effect of tourism-led development on the nutritional status of Yucatec Mayan children. T.L. Leatherman, University of South Carolina, Columbia, J.T. Stillman, A.H. Goodman, Hampshire College, Amherst, MA.

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SESSION 4 / SESSION 5

- 9:15 Factors influencing weight and BMI variability between 20 and 55 years of age. N. Cameron, C. Beynon, Loughborough University, UK.
- 9:30 Comparison of longitudinal, cross-sectional, and mixed longitudinal data in growth analysis. J.T. Richtsmeier, T.M. Cole, C.J. Valeri, T. Kontis, The Johns Hopkins University School of Medicine, Baltimore, MD.
- 9:45 INTERMISSION
- 10:00 The influence of language and geography on anthropometric variation of Native Americans from California. P.C. Dillingham, The University of Tennessee, Knoxville.
- 10:15 Heritability of cross-sectional morphology in long bones of anthropoid primates. T.A. Stein, The University of Chicago, IL.
- 10:30 Limb bone structure in flyers, gliders, and runners. J. Runestad Connour, Western Illinois University, Macomb.
- 10:45 An experimental test of articular surface response to mechanical loading. M.J. Devlin, D.E. Lieberman, The George Washington University, Washington DC, O.M. Pearson, University of New Mexico, Albuquerque.
- 11:00 Innominates and femora revisited: Ridges and buttressing-what do they mean? C.A. Roberts, University of Durham, UK.
- 11:15 A preliminary assessment of the effect of muscle-specific stress on the cross-sectional geometry of the humerus among the prehistoric agriculturalists of Arroyo Hondo Pueblo. M.L. Rhoads, M.A. Schillaci, E.A. Carson, E.G. Ozolins, University of New Mexico, Albuquerque.
- 11:30 Behavioral implications of long bone morphology among southern African and Andamanese foragers. J. Stock, University of Toronto, ON, Canada.
- 11:45 Causes of variation in the human vertebral neural canal: Pathological condition or not? N.E. Tatarek, Ohio University, Athens.

SESSION 5: ROSE GARDEN / ROSE GARDEN FOYER

PALEOPATHOLOGY I / SKELETAL BIOLOGY II: "POVERTY IN THE NINETEENTH CENTURY: INVESTIGATING ALMSHOUSE LIFE THROUGH SKELETAL AND ARCHIVAL ANALYSIS". POSTER SYMPOSIUM.

Over the past decade, anthropologists have investigated the impact of poverty on health through the analysis of nineteenth century almshouse collections. Skeletal data have been analyzed to better understand the demography, overall health and general quality of life of almshouse inmates. As we have looked for documentary evidence to support and add to conclusions drawn from skeletal analyses, it has become apparent that the archives themselves contain an enormous amount of data that can be used to study the biology of poverty in past populations. The goals of this symposium are to identify the similarities and differences in the quality of life for institutional paupers and, ultimately, to understand the biocultural aspects of poverty in the United States during the nineteenth century.

Organizers: R.L. Higgins, Cleveland State University, Cleveland, OH, J.E. Sirianni, State University of New York, Buffalo.

Times:	8:00-8:30 AM	Poster set-up.
	8:30-10:00	Authors present for questions.
	12:00-12:30 PM	Poster take-down.

1. Poverty and immigration in a city of change: Archival and skeletal analyses of the Dunning Poorhouse, Chicago. A.L. Grauer, Loyola University, Chicago, IL, E.M. McNamara, University of Illinois, Urbana Champaign, S.B. Hanson, Loyola University, Chicago, IL.
2. Social stigma, disease, and death in two New York County institutions. S.M. Phillips, State Historical Society of Wisconsin, Madison.
3. Almshouse demography during the nineteenth century. M. Haines, Colgate University, Hamilton, NY, R.L. Higgins, Cleveland State University, Cleveland, OH.
4. The Broome County poorhouse: Rates of abscondance; escaping from charitable organizations. T. O'Brien, P.E. Killoran, F. Tarricone, Binghamton University, Binghamton, NY.
5. Almshouses of New York State: Living for the moment. F.C. Tarricone, P.E. Killoran, T.G. O'Brien, Binghamton University, Binghamton, NY.
6. The Broome County poorhouse: Berated, bound out and buried. P. E. Killoran, F. Tarricone, T. O'Brien, Binghamton University, Binghamton, NY.
7. Disease-specific mortality among infants at the Erie County almshouse, 1880-1899. R.L. Higgins, Cleveland State University, Cleveland, OH.
8. Comparison of morbidity by demographic units between a poorhouse group and the surrounding community. L.P. Saunders, Rochester Museum and Science Center, Rochester, NY.

9. Disease patterns of residents of the Monroe County Almshouse compared to those observed in the City of Rochester, NY during the early nineteenth century. J.E. Sirianni, State University of New York, Buffalo.

SESSION 6: ROSE GARDEN / ROSE GARDEN FOYER

SKELETAL BIOLOGY III: VARIATION, EDUCATIONAL TOOLS. POSTERS

Chair: Joel Irish, University of Alaska, Fairbanks.

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| Times: | 8:00-8:30 AM | Poster set-up. |
| | 8:30-10:00 AM | Authors of even-numbered posters present for questions. |
| | 10:30 AM-12:00 PM | Authors of odd-numbered posters present for questions. |
| | 12:00-12:30 PM | Poster take-down. |
10. Postmarital residence and population structure at Pueblo Bonito. M.A. Schillaci, C.M. Stojanowski, University of New Mexico, Albuquerque.
11. Cranial morphology as evidence for distinct social groups at the Leavenworth site. A.H. McKeown, L.W. Konigsberg, University of Tennessee, Knoxville.
12. A study of discrete skeletal traits in the skeletal population from Albany Mounds, Illinois. K.L. Hornback, Northern Illinois University, DeKalb.
13. A re-examination of intra-site craniometric variation at the Larson site, Walworth County, South Dakota. C.A. Raemsch, Hartgen Archeological Associates, Inc., Troy, NY.
14. A matrix correlation model for investigating aspects of prehistoric intracemetery variation and population subdivision. C.M. Stojanowski, University of New Mexico, Albuquerque.
15. Intra-population variation in nasal morphology. R.L. Hall, Oregon State University, Corvallis.
16. Timeless tomb: Stable carbon evidence for tomb reuse in the Dakhleh Oasis, Egypt. T.L. Dupras, University of Central Florida, Orlando, S.I. Fairgrieve, Laurentian University, Sudbury, ON, Canada, H.P. Schwarcz, McMaster University, Hamilton, ON, Canada, J.E. Molto, Lakehead University, Thunder Bay, ON, Canada.
17. Paleoindian remains from Warm Mineral Springs (8So 19), Florida. S.C. Antón, University of Florida, Gainesville, J.F. Powell, University of New Mexico, Albuquerque, R.L. Quinn, University of Florida, Gainesville.

18. Birth defects and the environment: Not another polydactyly...please. J.F. Sture, University of Durham, UK.
19. Paleodietary survey of the Portuguese Mesolithic-Neolithic transition. Trace element analysis using INAA technique. C. Umbelino, Universidade de Coimbra, Portugal.
20. Analysis of the relationship between subsistence strategy and human growth: A Predynastic Egyptian example. S.R. Zakrzewski, University of Cambridge, UK.
21. The impact of human growth and development on the age and sex distributions of children and paleodemography. S.K. Goode-Null, University of Massachusetts, Amherst.
22. Bayesian prediction to adult age at death assessment on multiple indicators. A. Schmitt, C. Broqua, University Bordeaux I, Talence, France.
23. Age estimation at Tirup Cemetery: An application of the transition analysis method. B.M. Usher, Pennsylvania State University, University Park, J.L. Boldsen, Odense University, Odense, Denmark, D. Holman, University of Washington, Seattle.
24. Reconstruction of stature from long bones in Native American populations. T.M. Schober, University of Florida, Gainesville.
25. Determination of human adult stature and foot length from the length of the third metatarsal. K.A. Manley-Buser, J.L. Bhatti, Palmer College of Chiropractic, Davenport, IA.
26. Sex determination of Portuguese femur and humerus by discriminant functions. S.N. Wasterlain, H. Cardoso, E. Cunha, Universidade de Coimbra, Portugal.
27. Lost and found in the museum: Repatriation, ancestry, ethnicity, and history. S. Owsley, D. Owsley, D. Mulhern, Smithsonian Institution, Washington, DC.
28. Shades of gray: Bridging the gap in the repatriation controversy. A.T. Mayes, University of Colorado, Boulder.
29. Human remains on display - Curatorial and cultural concerns. K. Wiltshke-Schrotta, Museum of Natural History, Vienna, Austria, D.H. Ubelaker, Smithsonian Institution, Washington, DC.
30. Computer technology in Anthropology education: A review of multimedia and online software. D.R. Bolter, Modesto College, Modesto, CA.
31. *eSkeletons*: A web-based platform for learning anatomical form and function. J. Kappelman, T. Ryan, M. Zylstra, L. Alport, M. DeOliveira, A. Gordon, M. Maga, R. Scott, University of Texas, Austin.

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SESSION 6 / SESSION 7

32. New directions in bioarchaeology, post-NAGPRA and the use of *Standardized Osteological Database*. B. Renfro, University of Arkansas, Fayetteville.
33. Preparing a history of the American Association of Physical Anthropologists. M.A. Little, State University of New York, Binghamton, K.A.R. Kennedy, Cornell University, Ithaca, NY.

SESSION 7: ROSE GARDEN / ROSE GARDEN FOYER

FORENSICS I: POSTERS.

Chair: Joel Irish, University of Alaska, Fairbanks.

Times: 8:00-8:30 AM Poster set-up.
8:30-10:00 AM Authors of posters present for questions.
12:00-12:30 PM Poster take-down.

34. Does bifidity of cervical spinous processes increase with age? S.M. Duray, Palmer College of Chiropractic, Davenport, IA.
35. Post-burial disturbance of graves in Bosnia-Herzegovina. H.P. York, Kent State University, M.F. Skinner, Simon Fraser University, Burnaby, Canada, M.A. Connor, National Park University, Lincoln, Nebraska.
36. Analysis of cremated human remains from an Early Archaic mortuary site in Southern Indiana. T.R. Greene, C.W. Schmidt, University of Indianapolis, IN.
37. Distinguishing human from non-human ribs using external morphology. A.A. Gray, University of California, Riverside.
38. Estimating stature from incomplete long bones: New standards from Guatemala. L.E. Wright, Texas A&M University, College Station, TX, M.A. Vasquez, Universidad de San Carlos de Guatemala.
39. Occipital condyle-atlas articulation congruence. C. Katzmarzyk, University of Toronto, ON, Canada, V.H. Stefan, University of New Mexico, Albuquerque.
40. Discriminant function analysis of skeletal teaching collections: Population specific sex differences? A.L. Scott, New Mexico State University, Las Cruces.
41. Can shoeprint impression depth aid prediction of body weight? A. Williams, R. Pastor, C. Knusel, University of Bradford, UK.

42. A blind test of subadult skeletal sexing techniques using known-sex mummies from the Azapa Valley, Chile: A preliminary report. R.C. Sutter, Indiana-Purdue University, Fort Wayne, IN.

SESSION 8: ROSE GARDEN / ROSE GARDEN FOYER

SKELETAL BIOLOGY IV: "CURRENT AND FUTURE APPLICATIONS OF BONE HISTOLOGY TO BIOLOGICAL ANTHROPOLOGY". POSTER SYMPOSIUM.

The purpose of this symposium is to feature the application of bone histology to anthropological questions. The posters will be broad, introductory descriptions and interesting examples of histological methods as they are used in forensics, paleohistology, paleopathology, age-at-death estimation, studies of metabolic rate, locomotor and biomechanical studies and primate studies. The symposium is not meant to provide technical or high level discussions for histologists, but rather "audience friendly" posters, meant to educate non-histologists, and encourage new interests in applying histological methods.

Organizers: S.D. Stout, M. Streeter, University of Missouri, Columbia, N. Rogers, University of Tennessee, Knoxville.

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| Times: | 8:00-8:30 | Poster set-up |
| | 10:30 AM-12:00 PM | Authors present for questions |
| | 12:00-12:30 | Discussion, Executive Salon 4 |
| | 12:30-12:45 PM | Poster take-down |
43. Comparison of the amount of mechanical loading between humans and quadrupeds using intracortical remodeling rates of the humerus, femur, and rib. M.T. Vennemeyer, University of Missouri, Columbia.
44. Is there life after 40? Implications of bone remodeling in African-Americans. H. Cho, University of Missouri, Columbia.
45. Application of bone microstructural analysis to the comparative study of primate functional adaptation and life history. H.M. Goldman, S.C. McFarlin, J.S. Warshaw, F.S. Szalay, T.G. Bromage, Hunter College, The City University of New York, & NYCEP.
46. The impact of maternal lineage on intracortical remodeling in the rhesus macaque femur. L. M. Havill, Indiana University, Bloomington.
47. Differences in osteon organization between human and non-human bone. D.M. Mulhern, D.H. Ubelaker, Smithsonian Institution, Washington, D.C.
48. Histomorphometric analysis of bone in common marmosets. R. Power, Kent State University, Kent, OH, C.P. Jerome, SkeleTech, Inc, Bothell, WA, S.D. Tardif, Kent State University, Kent, OH.

THURSDAY, APRIL 13, 2000

SESSION 8 / SESSION 9

- 49. Can histological age estimation methods be applied to sub-adults?: A study from Paloma, Peru. H.L. Ramsay, University of Missouri, Columbia.
- 50. Histological stress indicators in Late Pleistocene hominid diaphyseal bone. M. Streeter, S.D. Stout, University of Missouri, Columbia, E. Trinkaus, Washington University, St. Louis.
- 51. Bone histomorphometric correlates of biomechanics, limb use patterns, and bone function. R.A. Walker, T.M. Greiner, New York Chiropractic College, Seneca Falls, NY.
- 52. Microstructural preservation of archaeological bone tissue. C. Savorè, D. Formenti, University of Pavia, Italy, L. Bondioli, R. Macchiarelli, National Prehistoric Ethnographic "L. Pigorini" Museum, Rome, Italy.
- 53. Patterns of osteon size, comparing Holocene hunter-gatherers and recent humans. M.D. Brown, University of Guelph, ON, Canada.
- 54. The histological development of cortical bone in juveniles from Spitalfields, a known-age sample. S. Pfeiffer, University of Toronto, ON, Canada, L. Dixon, University of Guelph, Guelph, ON, Canada.
- 55. Patterns of femoral bone remodeling and age determination: Comparison of the Tongariki Native Easter Islanders with European population. A.G. Drusini, University of Padova, Italy.
- 56. Changes in cortical area in the individual human rib. K.R. Lotz, University of Missouri, Columbia.

THURSDAY AFTERNOON, APRIL 13, 2000

SESSION 9: TEXAS A

PALEOPATHOLOGY II: CONTRIBUTED PAPERS.

Chair: Pia Bennike, University of Copenhagen, Denmark.

- 1:00 PM Marginal lippling relative to joint location, size, and function: A metric analysis of marginal osteophytes. S.E. Niebuhr, Indiana University, Bloomington.
- 1:15 A preliminary analysis of the relationship between osteoarthritic lesions and cross-sectional geometry as a determination of activity patterns among the prehistoric agriculturalists of Arroyo Hondo Pueblo, New Mexico. E.A. Carson, M.A. Schillaci, M.L. Rhoads, University of New Mexico, Albuquerque.

- 1:30 Chronic vitamin C deficiency as an important factor of morbidity and mortality in prehistoric populations. P. Carli-Thiele, M. Schultz, University of Göttingen, Germany.
- 1:45 Chemical analysis of infant feeding practices from the Imperial Roman site of *Portus Romae*, Italy. T.L. Prowse, H.P. Schwarcz, S.R. Saunders, McMaster University, Hamilton, ON, Canada, L. Bondioli, R. Macchiarelli, Pigorini National Museum of Prehistory and Ethnography, Rome, Italy.
- 2:00 Differences between medieval and modern trabecular bone architecture. S.C. Agarwal, M. Dumitriu, M.D. Grynpsas, University of Toronto, Samuel Lunenfeld Research Institute of Mount Sinai Hospital, Toronto, ON, Canada.
- 2:15 The development of a 'standard' for measuring bone mineral density in archaeological bone. M. Brickley, University of Birmingham, UK.
- 2:30 CT-guided biopsy - a new technique and its value for paleopathological examinations. F.J. Ruehli, Institute of Diagnostic Radiology, University Hospital, Zurich, J. Hodler, T.H. Boeni, Orthopedic University Clinic Balgrist, Zurich, Switzerland.
- 2:45 Porotic hyperostosis, tetracycline and alcohol use in an ancient population. A. Thompson, G.J. Armelagos, Emory University, Atlanta, GA.
- 3:00 INTERMISSION
- 3:15 Skeletal analysis from late Roman/Byzantine tomb: Yasileh, tomb 361. K.D. Williams, University of Arkansas, Fayetteville.
- 3:30 The skeletal remains from a great medieval Portuguese battle. C. Marques, V. Matos, E. Cunha, Universidade de Coimbra, Portugal.
- 3:45 Adjustments to agriculture in early farming communities of northeast China. E.A. Pechenkina, R.A. Benfer, Jr., University of Missouri, Columbia.
- 4:00 Subadult skeletal pathology on prehistoric Tongatapu, Polynesia. H.R. Buckley, University of Otago, Dunedin, New Zealand.
- 4:15 Skeletal indications of proto-urban life on the central coast of Perú. J.A. Vradenburg, University of Missouri, Columbia.
- 4:30 Temporal differences in quality of life in two central Californian Native American populations. E. Weiss, University of Arkansas, Fayetteville.

- 4:45 Ambush at Ft. Laurens: Interpersonal conflict between Colonial Period Native Americans and Europeans in Ohio. M.A. Williamson, Georgia Southern University, Statesboro, C.A. Johnston, Ohio Historical Society, Columbus, S.A. Symes, University of Tennessee, Memphis, J.J. Schultz, University of Florida, Gainesville.

SESSION 10: TEXAS B

SKELETAL BIOLOGY V / PRIMATES II: "SHAPING PRIMATE EVOLUTION: A CELEBRATION OF THE CONTRIBUTIONS OF CHARLES OXNARD". SYMPOSIUM.

Charles Oxnard's significant achievements in physical anthropology and primatology transcend his lasting interest in the study of morphometrics and primate functional morphology. He has influenced the ways that generations of students, friends and collaborators perceive and engage in scientific inquiry. On the occasion of his retirement, we have gathered a group of people who represent his diverse interests: locomotion (Jablonski and Chaplin, Crompton, Kidd), craniofacial and dental anatomy (deWinter, Ruling, Greaves), the mechanical basis of morphology (Hylander et al., Herring and Teng, Anapol), quantitative analysis of the interaction between form and function (Albrecht, Jungers et al., O'Higgins, German, Lucas) and the impact of such work on primate diversity and evolution (Fleagle, Groves). The breadth and depth of this symposium will honor and celebrate Oxnard's inspiration as well as his substantive contributions to the field.

Organizers: R. German, University of Cincinnati, OH, N. Jablonski, California Academy Sciences, San Francisco.

- 1:00 PM Symposium introduction. Charles Oxnard: An appreciation. M. Cartmill, Duke University Durham, N.C.
- 1:15 Advances in the analysis of form and pattern: facial growth and sexual dimorphism in *Cercocebus torquatus* and *Cebus apella*. P. O'Higgins, University College London, UK.
- 1:30 Multivariate morphometric patterns of sexual dimorphism in primates. G.H. Albrecht, University of Southern California, Los Angeles.
- 2:00 A theoretical estimate of the location of the anterior incisor in primates. W.S. Greaves, University of Illinois at Chicago.
- 2:15 Ontogenetic allometry of the skull. R.Z. German, University of Cincinnati, OH.
- 2:30 Architecture of trabecular bone and mechanical loading in the skull. S.W. Herring, S. Teng, Z.J. Liu, University of Washington, Seattle.
- 2:45 Jaw-muscle recruitment patterns during mastication in anthropoids and prosimians. W.L. Hylander, Duke University, Durham, NC, M.J. Ravosa, Northwestern Medical School,

THURSDAY, APRIL 13, 2000

SESSION 10 /SESSION 11

Chicago, C.F. Ross, State University of New York, Stony Brook, C.E. Wall, K.R. Johnson, Duke University, Durham, NC.

- 3:00 Fiber architecture of the muscles of the shoulder and arm in semiterrestrial and arboreal guenons. F. Anapol, University of Wisconsin, Milwaukee.
- 3:15 Do theories of bipedalization stand up to anatomical scrutiny? N.G. Jablonski, G. Chaplin, California Academy of Sciences, San Francisco.
- 3:30 Diagonal gait in primates: Its role in stability on arboreal substrates. R.H. Crompton, Y. Li, W. Wang, R. Savage, R.C. Payne, M.M. Gunther, University of Liverpool, UK.
- 3:45 Brain 'shape' and locomotion in primates. W. DeWinter, University of Western Australia, Perth, Australia.
- 4:00 Brain size and body size covariation in hominoids. W.L. Jungers, State University of New York, Stony Brook, R.L. Holloway, Columbia University, New York, W.T. Fitch, Harvard University, Cambridge, MA, R.J. Smith, Washington University, St. Louis, MO.
- 4:15 Inter- and intraspecific cranial variation of Asian colobines. R.L. Pan, The University of Western Australia, Perth, Australia, The Chinese Academy of Sciences, P.R. China.
- 4:30 Comparing the shape of primate behavior and ecology. J.G. Fleagle, State University of New York at Stony Brook, K.E. Reed, Arizona State University, Tempe.
- 4:45 Charles Oxnard and the aye-aye: Morphometrics, cladistics and two very special primates. C.P. Groves, Australian National University, Canberra.
- 5:00 Plant mechanics and primate dental adaptations: An overview. P.W. Lucas, University of Hong Kong.

SESSION 11: TEXAS C

PALEOANTHROPOLOGY II: "BEYOND NEANDERTALS, BEFORE FARMERS: BIO-CULTURAL CHANGES IN LATE GLACIAL EUROPE". SYMPOSIUM.

The Early Upper Paleolithic to Late Upper Paleolithic transition has emerged as an extremely dynamic time period, during which many of the characteristics associated with Neolithic food-producing economies originated. Some of these characteristics include increased population density, resource overexploitation and intensification, decreased mobility, increased territoriality, and technological specialization. This symposium brings together paleontologists and archaeologists working on the biobehavioral evolution of Upper Paleolithic populations in an effort to stimulate cross-disciplinary exchange of information and ideas.

Organizers: S.E. Churchill, Duke University, Durham, NC, B.M. Holt, University of Missouri, Columbia.

THURSDAY, APRIL 13, 2000

SESSION 11 / SESSION 12

- 1:00 PM Introduction (no abstract). S.E. Churchill, Duke University, Durham, NC, B.M. Holt, University of Missouri Columbia.
- 1:15 Paleolithic population growth pulses evidenced by small animal exploitation. M.C. Stiner, N.D. Munro, T.A. Surovell, University of Arizona, Tucson.
- 1:30 Upper Paleolithic Moravia between East and West: Aspects of settlement pattern, subsistence and technology. J. Svobada, Czech Academy of Sciences, Czech Republic.
- 1:45 Seasonality, mobility, and the division of labor across the EUP/LUP transition. A. Pike-Tay, L.L. Johnson, Vassar College, Poughkeepsie, NY.
- 2:00 Upper Paleolithic transitions: Adaptations to dynamic environments. J.E. Enloe, University of Iowa, Iowa City.
- 2:15 DISCUSSION: A. Montet-White, University of Kansas, Lawrence.
- 2:30 INTERMISSION
- 2:45 Stature as an indicator of life conditions in Upper Paleolithic and Mesolithic Europe. V. Formicola, University of Pisa, Italy.
- 3:00 Behavioral changes in European Upper Paleolithic foragers: Evidence from biomechanical analysis of the appendicular skeleton. B. Holt, University of Missouri, Columbia, S. Churchill, Duke University, Durham, NC.
- 3:15 Lower limb epiphyseal vs. diaphyseal morphology of Upper Paleolithic humans: Implications for body mass and activity levels. T.W. Holliday, Tulane University, New Orleans, LA.
- 3:30 The robusticity-gracility debate: Temporal trends in European cranial morphology. B.A. Schumann, Florida Atlantic University, Boca Raton.
- 3:45 Population structure in late Pleistocene and recent Europeans. D.W. Frayer, University of Kansas, Lawrence, J. Hawks, University of Utah, Salt Lake City, R. Caspari, University of Michigan, Ann Arbor.
- 4:00 DISCUSSION: E. Trinkaus, Washington University, St. Louis, MO.

SESSION 12: EXECUTIVE SALON II

GENETICS II / HUMAN BIOLOGY III: POPULATION GENETICS AND DISEASE. CONTRIBUTED PAPERS.

THURSDAY, APRIL 13, 2000

SESSION 12 / SESSION 13

Chair: S.M. Fullerton, Pennsylvania State University, University Park.

- 1:00 PM Origins of population structure in modern humans. E.E. Eller, University of Utah, Salt Lake City.
- 1:15 Microsatellite repeat size differences between populations or species: Role of ascertainment bias. M. Kimmel, Rice University, Houston, R. Chakraborty, University of Texas School of Public Health, Houston, TX, R.E. Ferrell, University of Pittsburgh, R. Deka, University of Cincinnati, OH.
- 1:30 Discerning admixture dynamics: Two models. C.L. Pfaff, E.J. Parra, M.D. Shriver, Pennsylvania State University, University Park.
- 1:45 Marriage patterns, admixture estimates and *Fst* statistics in two ethnic groups in Limón, Costa Rica. L. Madrigal, B. Ware, R. Miller, University of South Florida, Tampa.
- 2:00 Cancer incidences in Europe related to ethnohistoric and genetic distances. R.R. Sokal, N.L. Oden, M.S. Rosenberg, B.A. Thomson, State University of New York, Stony Brook.
- 2:15 DNA sequence variation at the *APOE* locus: New insights into the global distribution of an important human polymorphism. S.M. Fullerton, K.M. Weiss, A.G. Clark, Pennsylvania State University, University Park, S.L. Taylor, D.A. Nickerson, University of Washington, Seattle, J. Stengård, National Public Health Institute, Helsinki, Finland, E. Boerwinkle, University of Texas Health Science Center, Houston, C.F. Sing, University of Michigan, Ann Arbor.
- 2:30 Are the mummies of Late Bronze/Early Iron Age Xinjiang (China) Indo-European invaders from the Russian steppes? B.E. Hemphill, California State University, Bakersfield.

SESSION 13: EXECUTIVE SALON II

DENTAL ANTHROPOLOGY I: CONTRIBUTED PAPERS.

Chair: E.F. Harris, University of Tennessee, Memphis.

- 3:00 PM Growth patterns of human enamel analyzed by confocal microscopy. R. Haydenblit, P. Smith, The Hebrew University-Hadassah School of Dental Medicine, Jerusalem. B. Podbilewicz, Technion-Israel Institute of Technology, Haifa, Israel.
- 3:15 The timing of childhood stress events in an archaeological population of Rome determined using enamel microstructural analysis. C. Fitzgerald, S.R. Saunders, McMaster University Hamilton, ON, Canada, R. Macchiarelli, L. Bondioli, National Prehistoric Ethnographic "L. Pigorini" Museum, Rome, Italy.

- 3:30 The Upper Paleolithic children of Russia: Comparative dental anthropological analysis of the permanent teeth. A.M. Haeussler, C.G. Turner II, Arizona State University, Tempe.
- 3:45 The Upper Paleolithic-Mesolithic dental complex in Europe. A. Coppa, A. Cucina, R. Vargiu, Università di Roma "La Sapienza", Italy, D. Mancinelli, Università de L' Aquila, M. Lucci, Università di Cagliari, Italy.
- 4:00 Morphological factors reflected in dental wear: The sinking of subsistence. M.M. Glantz, University of Pennsylvania, Philadelphia.
- 4:15 Patterns of paleodiet and bio-cultural practices of the inhabitants of Neolithic Ain Ghazal in Jordan. I. Sarie', Al-Quds University, Hebrew University of Jerusalem.
- 4:30 Dental caries in prehistoric California Indians: A comparative test of the Jomon agriculture hypothesis. A.J. Adler, C.G. Turner II, Arizona State University, Tempe.

SESSION 14: ROSE GARDEN / ROSE GARDEN FOYER

PALEOANTHROPOLOGY III: PRIMATE EVOLUTION. POSTERS.

Chair: G.F. Gunnell, University of Michigan, Ann Arbor.

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| <i>Times:</i> | 1:00-1:30 PM | Poster set-up. |
| | 1:30-3:00 PM | Authors of even-numbered posters present for questions. |
| | 3:00-4:30 PM | Authors of odd-numbered posters present for questions. |
| | 4:30-5:00 PM | Poster take-down. |
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1. The postcranial morphology of *Ptilocercus lowii* (Scandentia, Tupaiidae) and its significance for the systematics of scandentians, primates, and other archontan mammals. E.J. Sargis, City University of New York, NYCEP, Hunter College, New York.
 2. New ear region of *Ignacius graybullianus*. J.I. Bloch, University of Michigan, Ann Arbor, M.T. Silcox, Johns Hopkins University, Baltimore, MD, P. Houde, New Mexico State University, Las Cruces.
 3. A new Clarkforkian primate fauna from the Great Divide Basin, SW Wyoming. R.L. Anemone, E.M. Johnson, Western Michigan University, Kalamazoo, B.A. Nachman, Washington University, St. Louis, MO, D.J. Over, State University of New York, Geneseo.
 4. Paleoenvironmental analysis of an early Eocene locality in southwestern Wyoming. E.M. Johnson, R.L. Anemone, Western Michigan University, Kalamazoo.

5. A review of the validity of the new genus *Pseudopotto* (Schwartz, 1996). B.S. Leon, University of Massachusetts, Amherst.
6. New primate fossils discovered from the late Middle/Late Eocene of the Pondaung Formation, Central Myanmar. M. Takai, N. Shigehara, Kyoto University, Japan, A.K. Aung, Dagon University, Myanmar, A.N. Soe, University of Yangon, Myanmar, S.T. Tun, Dagon University, Myanmar, T. Tsubamoto, Kyoto University, Japan.
7. New sub-Saharan Oligocene fossil localities from northwestern Ethiopia. M. Feseha, J. Kappelman, University of Texas, Austin, D.T. Rasmussen, Washington University, St. Louis, MO, J. Fleagle, State University of New York, Stony Brook, P. Copeland, University of Houston, TX, T. Ryan, University of Texas, Austin, W. Sanders, University of Michigan, Ann Arbor.
8. Geographic variation in the crania of *Cebus albifrons*. T.J. Masterson, Central Michigan University, Mt. Pleasant.
9. The ecological diversity of the fossil primate community from La Venta, Colombia. C.E. Currie, Arizona State University, Tempe.
10. Mangabey systematics: Implications of reproductive characteristics. S.E. Walker, Southwest Missouri State University, Springfield, L.P. Field, Sacramento Zoo, Sacramento, CA, E. Strasser, California State University, Sacramento.
11. Habitat preference and locomotion in Plio-Pleistocene *Theropithecus* species. S. Elton, University of Kent, Canterbury, UK.
12. A new skeleton of the large hominoid from Nachola, northern Kenya. M. Nakatsukasa, Y. Kanimatsu, Y. Nakano, H. Ishida, Kyoto University, Japan, Osaka University, Japan.
13. Does dental microwear analysis confirm or reject dietary predictions based on functional dental morphology? A comparative test case for fossil primates utilizing the middle Miocene primates from Maboko Island, Kenya. A.K. Palmer, University of Texas, Austin, B.R. Benefit, M.L. McCrossin, Southern Illinois University, Carbondale.
14. Circular shapes do not an ape make: Comments on interpretation of the inferred *Morotopithecus* scapula. K.B. Johnson, M.L. McCrossin, B.R. Benefit, Southern Illinois University, Carbondale.
15. Is *Morotopithecus* a great ape? N. Young, Harvard University, Cambridge, MA, L. MacLatchy, Boston University, MA.

16. A re-evaluation of enamel thickness and development in *Afropithecus turkanensis*. T.M. Smith, L.B. Martin, State University of New York, Stony Brook.
17. Four catarrhine crania from Rudabánya. L. Kordos, The Geological Museum of Hungary, Budapest, D.R. Begun, University of Toronto, ON, Canada.
18. The deciduous dentition of *Griphopithecus*: Morphometric analyses of a Middle Miocene hominoid. G. Mortzou, University College, London, UK. P.J. Andrews, Natural History Museum, London, UK, L.C. Aiello, University College, London, UK.
19. Morphometric analysis of hominoid lower molars found in Yuanmou of Yunnan Province, China. W. Liu, Institute of Vertebrate Paleontology and Paleoanthropology, Beijing, China, L. Hlusko, Pennsylvania State University, University Park, L. Zheng, Provincial Institute of Archaeology, Kunming, China.
20. Historical biogeography of the gibbons. H. Chatterjee, M. Collard, L.C. Aiello, M. Thomas, University College, London, UK.
21. Extractive foraging behavior and brain evolution in large-brained mammalian lineages, with special emphasis on primates and the genus *Homo*. J.A. Heller, University of New Mexico, Albuquerque.
22. Phylogenetic test of the expensive tissue hypothesis for encephalization in primates. J.L. Fish, C.A. Lockwood, Arizona State University, Tempe.
23. Relative reliability of bones, teeth and soft-tissues in higher primates phylogenetics. S. Gibbs, University of Liverpool, UK, M. Collard, University College, London, UK, B.A. Wood, George Washington University, Washington, DC.

SESSION 15: ROSE GARDEN / ROSE GARDEN FOYER

PALEOANTHROPOLOGY IV: HOMINIDS. POSTERS.

Chair: J.C. Ohman, John Moores University, Liverpool, UK.

Times:	1:00-1:30 PM	Poster set-up.
	1:30-3:00 PM	Authors of even-numbered posters present for questions.
	3:00-4:30 PM	Authors of odd-numbered posters present for questions.
	4:30-5:00 PM	Poster take-down.

24. Does the hominid mandibular corpus have any taxonomic utility? N. Silverman, B. Richmond, B. Wood, The George Washington University, Washington, DC.

25. Establishing the polarity of temporal bone morphology in African hominoids using geometric morphometrics. C.A. Lockwood, J.M. Lynch, W.H. Kimbel, Arizona State University, Tempe.
26. Development of the palatal shape in *Pan troglodytes*, hominoids, hominids and man. W.H. Arnold, A. Zoellner, T.H. Sebastian, University of Witten/Herdecke, Germany.
27. Functional diagnostics of the australopithecine foot: An architectural perspective. G. Berillon, Institut de Paléontologie Humaine, Paris, France.
28. A new approach to the analysis of the olecranon process in living hominoids and *A. afarensis*. M.S. Drapeau, University of Missouri, Columbia.
29. Glenoid fossa depth and curvature as indicators of locomotor function in living hominoids and australopithecines. M.T. Irwin, S.G. Larson, State University of New York, Stony Brook.
30. The trabecular structure of the South African Australopithecine pelvic bone: A question of angles? V. Galichon, Collège de France, Paris, France.
31. Relative postcranial joint size in australopithecine associated partial skeletons Stw 431 and AL 288-1. S.D. Dobson, Washington University, St. Louis, MO.
32. Cross-sectional geometric properties of the distal tibial metaphysis in humans and apes. C.A. Kunos, B. Latimer, Case Western Reserve University, Cleveland Museum of Natural History, Cleveland, OH.
33. Interproximal grooving of fossil hominin teeth: Additional evidence from Olduvai Gorge. P.S. Ungar, University of Arkansas, Fayetteville, F.E. Grine, State University of New York, Stony Brook, M.F. Teaford, Johns Hopkins University, Baltimore, MD, A. Pérez-Pérez, Universitat de Barcelona, Spain, C.C. Magori, University of Dar es Salaam, Tanzania.
34. Further dental evidence on the taxonomic status of *Homo* Maxilla A.L. 666-1 (Hadar, Ethiopia). R. Ohlinger, W.H. Kimbel, Arizona State University, Tempe.
35. The CT-scans of fossilized crania with encrustations removed allow morphological and metric comparisons of para-nasal sinuses. H. Prossinger, L. Wicke, H. Seidler, G.W. Weber, W. Recheis, G.B. Müller, Institute of Anthropology, Vienna, Austria.
36. Neocortical and neocerebellar expansion in *Paranthropus* endocasts and their bearing on basicranial similarities with *Homo*. D.D. White, State University of New York, Albany.
37. Endocranial capacity of "Bodo Man" by 3D-CT. G. Conroy, Washington University Medical School, St. Louis, MO, G. Weber, H. Seidler, University of Vienna, Austria, W. Recheis, D.

- Zur Nedden, University Hospital of Innsbruck, Austria, J. Mariam, Office of Conservation and National Heritage, Addis Ababa, Ethiopia.
38. Thickness mapping of the occipital bone based on CT-data. G.W. Weber, J. Kim, H. Seidler, University of Vienna, Austria.
39. A Neanderthal child remains recovered at Dederiyeh cave, Syria in 1997-1998. H. Ishida, University of the Ryukyus, Nishihara, Japan, O. Kondo, The University of Tokyo, Japan, M. Sultan, Direction General of Department of Antiquities and Museums, Damascus, Syria, T. Akazawa, International Research Center for Japanese Studies, Kyoto, Japan.
40. Late Pleistocene circum-Mediterranean population interaction: Evidence from the Tangier (Morocco) subadult fossil maxilla. V. Hutchinson, Northern Illinois University, DeKalb.
41. Ontogeny of limb robusticity in the Upper Pleistocene of Europe. A.J. Nelson, University of Western Ontario, London, ON, Canada, J.L. Thompson, University of Nevada, Las Vegas.
42. Long bone robusticity and claviculo-humeral proportions of the Amud 7 Neandertal baby. H. Odwak, University College, London, UK.
43. Ontogeny of the Neandertal occipitomastoid region. N. Minugh-Purvis, MCP Hahnemann University, Philadelphia, PA, M. Speirs, Swarthmore College, Swarthmore, PA.
44. Neandertal frontals from Croatia: New reconstructions and new specimens. J.C.M. Ahern, University of North Dakota, Grand Forks.
45. Two dental features to place the Neanderthals. P.-F. Puech, Faculté d'Odontologie à Marseille, Nimes, France.
46. Cross-sectional metric analysis of scapular axillary border morphology in recent humans and the Krapina Neandertals. R.G. Franciscus, C.R. Schoenebaum, University of Iowa, Iowa City.
47. Variation in scapular axillary border morphology. S.P. Dougherty, V.D. O'Loughlin, Indiana University, Bloomington.
48. Another look at Neandertal limb proportions. W.L. Moore, University of Tennessee, Knoxville.
49. Postcranial differences between Neandertals and cold-adapted recent humans. O.M. Pearson, University of New Mexico, Albuquerque.
50. Femoral bicondylar angle measurements in 3D. A. Ligato, K.G.M. Gerritsen, M.W. Marzke, Arizona State University, Tempe.

THURSDAY, APRIL 13, 2000 / FRIDAY APRIL 14, 2000

SESSION 15 / SESSION 16

51. Middle Pleistocene to Holocene postcranial gracilization in black wildebeest, *Connochaetes gnou*, and its implications for understanding diachronic changes in robusticity in the genus *Homo*. S.E. Churchill, Duke University, Durham, NC, J.S. Brink, National Museum, Bloemfontein, South Africa, L.T. Gruss, Duke University, Durham, NC.
52. The effects of gene flow on phylogenetic analysis using cladistic methodology. M.L. Chang, University of Pennsylvania, Philadelphia.
53. Within-group human variation in the Asian Pleistocene: An assessment of the three Upper Cave Crania. D.L. Cunningham, University of Missouri, Columbia, D.J. Wescott, University of Tennessee, Knoxville.

THURSDAY EVENING, 6:00-7:30PM

PLENARY SESSION, TEXAS A & B

Speaker: John VandeBerg, Southwest Foundation for Biomedical Research, "*Biological Anthropology at the Frontiers of Biomedical Research: Genetic Research on Chagas' Disease*"

THURSDAY EVENING 8:30-11:30PM

WILEY-LISS RECEPTION, TEXAS BALLROOM

FRIDAY, MORNING APRIL 14, 2000

SESSION16: TEXAS A

HUMAN BIOLOGY IV / PALEOPATHOLOGY III: "BIOCULTURAL PERSPECTIVES ON PREGNANCY AND PARTURITION IN THE PAST". SYMPOSIUM.

Pregnancy and parturition represent important domains in understanding women's health. Although previous studies of archaeological populations have demonstrated high maternal mortality, the biocultural factors involved in these rates are not well understood. This symposium will explore the roles and positions of women, in the past, by synthesizing biological data within cultural contexts. By linking reproduction, workload, and cultural practices with empirical data from skeletal tissues, a systematic evaluation of a wide range of ecological and biocultural factors that effect maternal health can be explored. This synthesis, of biological data with cultural information, also has the potential to reveal much about the gendered influences that shape reproductive health, occupation, and lifestyle.

Organizer

and Chair: P.K. Stone, University of Massachusetts, Amherst.

- 8:00 AM Do big females have big pelvises? R. Tague, Louisiana State University, Baton Rouge.
- 8:15 Problems in the identification of female neandertal pelvic remains. A.M. Tillier, J. Bruzek, Université Bordeaux, France.

FRIDAY, APRIL 14, 2000

SESSION 16 / SESSION 17

- 8:30 Women in ancient Nubia: Birth, babies, beer and bread. G.J. Armelagos, Emory University, Atlanta, GA, L. Sibley, American College of Nurse-Midwives, Washington, DC, D.L. Martin, Hampshire College, Amherst, MA.
- 8:45 Strong Women in Marginal Places: Rates of Morbidity and Mortality for Ancestral Pueblo Populations. D.L. Martin, P.K. Stone, M. Barr-Dichiara, Hampshire College, Amherst, MA, S. Burgdorf, Mount Holyoke College, S. Hadley, MA.
- 9:00 Biocultural perspectives of maternal mortality in ancestral Pueblo populations. P.K. Stone, University of Massachusetts, Amherst.
- 9:15 Death and the mother's hand: The nature of children's burials. R. Mathis, University of Massachusetts, Amherst.
- 9:30 Evaluating the risk of recent pregnancy on death by tuberculosis in Gibraltar, 1874-1884. S.D.A. Burke, L.A. Sawchuk, University of Toronto at Scarborough, ON, Canada.
- 9:45 INTERMISSION
- 10:00 The effect of maternal UVB radiation deprivation on pregnancy and parturition. K. Fuller, University of Kansas School of Medicine, Kansas City.
- 10:15 Parent and child health in a Yanomamö village. E.H. Hagen, University of California, Santa Barbara, R.B. Hames, University of Nebraska, Lincoln, N.M. Craig, M.T. Lauer, M.E. Price, University of California, Santa Barbara.
- 10:30 Maternal and newborn morbidity and mortality: a report from rural northern India. L. Sibley, American College of Nurse-Midwives, L. Caleb-Varkey, J. Upadhyay, S. Bharti, Study Co-Managers for Community Partnerships for Safe Motherhood, Washington, DC.
- 10:45 DISCUSSANT: K.R. Rosenberg, University of Delaware, Newark
- 11:00 DISCUSSANT: R.B. Thomas, University of Massachusetts, Amherst

SESSION 17: TEXAS B

GENETICS III / PRIMATES III / PALEOANTHROPOLOGY V: "RECONSTRUCTING PRIMATE PHYLOGENY AND HUMAN EVOLUTION IN THE AGE OF GENOMIC EXPLORATION". SYMPOSIUM. The human genome is a dynamic structure influenced by directional and random processes. Knowledge of sister-group relationships among primate clades provides an objective framework for examining the processes of molecular evolution that shaped the human genome and their results. DNA evidence on primate phylogeny is increasing at a rapid rate and the symposium will investigate the state of thinking regarding primate molecular phylogeny. Additionally, examples of positively selected changes in genes and

gene expression patterns that were preserved by purifying selection in humankind's evolutionary history will be presented. Consideration will also be given to the need for an international multidisciplinary Human Genome Evolution Project that has the goal of deciphering the genetic basis of being human.

Organizers

and Chairs: M. Goodman, Wayne State University, Detroit, MI, M. Weiss, National Science Foundation, Arlington, VA.

- 8:00 AM Introductory remarks. M. Goodman, Wayne State University, Detroit, MI, M. Weiss, National Science Foundation, Arlington, VA.
- 8:15 Implications of a multi-gene phylogeny for strepsirrhine biogeography and evolution. A.D. Yoder, Northwestern University, Chicago, IL
- 8:30 Reconstructing the evolutionary history of Asian primates using mitochondrial, Y-chromosome and autosomal DNA sequences. D. Melnick, N. Andayani, B.J. Evans, M.R.J. Forstner, A.J. Tosi, D.T. The, W. Wang, B.M.M. Zain, J.C. Morales, Columbia University, New York.
- 8:45 Primate evolution: In and out of Africa. T.R. Disotell, New York University, New York, C.-B. Stewart, State University of New York, Albany.
- 9:00 Genetics and morphology in vervet monkey evolution. T.R. Turner, J.P. Gray, F. Anapol, University of Wisconsin, Milwaukee, M.L. Weiss, National Science Foundation, Arlington, VA.
- 9:15 Evolutionary patterns and processes in New World primates. C.-H. Chiu, Max Planck, Institute for Evolutionary Anthropology, Leipzig, Germany, S.L. Page, M. Goodman, Wayne State University, Detroit, MI.
- 9:30 Genetic systems of color vision in primates. W.-H. Li, University of Chicago, IL.
- 9:45 Molecular evolution of aerobic energy metabolism in primates. L.I. Grossman, M. Goodman, T.R. Schmidt, W. Wu, Wayne State University, Detroit, MI.
- 10:00 Genetic differences between humans and chimpanzees: Above and beyond the silent substitution rate. C.-B. Stewart, State University of New York, Albany.
- 10:15 INTERMISSION
- 10:30 Noncoding DNA evolution in primates. M. Goodman, S. Page, C.M. Meireles, J. Czelusniak, C. Chiu, Wayne State University, Detroit, MI.

FRIDAY, APRIL 14, 2000

SESSION 17 / SESSION 18

- 10:45 Human genetic loss of CMP-sialic acid hydroxylase occurred after the last common ancestor with the great apes. A. Varki, University of California, San Diego.
- 11:00 Detecting evolutionary novelties in the human genome. M. Ruvolo, Harvard University, Cambridge, MA.
- 11:15 The status of federal support for a Human Origins Initiative. M.L. Weiss, J. Yellen, National Science Foundation, Arlington, VA.
- 11:30 DISCUSSION.

SESSION 18: TEXAS C

PRIMATES IV: BEHAVIORAL ECOLOGY. CONTRIBUTED PAPERS.

- Chair:* L.E. Miller, University of California, San Diego.
- 8:00 AM Food resource characteristics in two nocturnal lemurs with different social behavior: *Avahi occidentalis* and *Lepilemur edwardsi*. U. Thalmann, University of Zürich, Switzerland.
- 8:15 Effects of food type and distribution on feeding competition in sifakas. C.A. Hemingway, Duke University, Durham, NC.
- 8:30 Patterns of resource use in three sympatric *Haplemur* species in Ranomafana National Park, Madagascar. C.L. Tan, State University of New York, Stony Brook.
- 8:45 Plant species composition of diet in two sympatric lemurs: *Varecia variegata rubra* and *Eulemur fulvus albifrons*. N. Vasey, Pennsylvania State University, University Park.
- 9:00 Dietary comparisons of Verreaux's sifaka in different microhabitats in Beza Mahafaly special reserve, Madagascar. N. Yamashita, University of Hong Kong, China.
- 9:15 Variability in habitat, diet, and social structure of *Haplemur griseus griseus*. C. Grassi, University of Texas, Austin.
- 9:30 Sex and age class differences in the foraging behavior of free-ranging white-faced capuchins (*Cebus capucinus*) in Costa Rica. M.A. Panger, The George Washington University, Washington, DC.
- 9:45 Predation and foraging in Venezuelan capuchin monkeys (*Cebus olivaceus*). L.E. Miller, University of California at San Diego, La Jolla.
- 10:00 INTERMISSION

FRIDAY, APRIL 14, 2000

SESSION 18 / SESSION 19

- 10:15 Sex differences in tool use and meat eating among wild orangutans. C.P. Van Schaik, Duke University, Durham, NC.
- 10:30 Gorillas as gourmands: Digestive capabilities and food preferences of gorillas. M.J. Remis, Purdue University, W. Lafayette, IN.
- 10:45 Ecological and behavioral correlates of vigilance in brown capuchin monkeys (*Cebus apella*) in Iguazu, Argentina. B.T. Hirsch, State University of New York, Stony Brook.
- 11:00 The behavioral ecology of mixed species troops of *Callimico goeldii*, *Saguinus labiatus*, and *S. fuscicollis* in northwestern Brazil. P.A. Garber, University of Illinois, Urbana.
- 11:15 Effects of ecotourism on the behavioral ecology of Bwindi gorillas, Uganda: Preliminary results. M.L. Goldsmith, Tufts University, N. Grafton, MA.
- 11:30 Allometric slopes and independent contrasts: A comparative test of Kleiber's law in primate ranging patterns. C.L. Nunn, University of Virginia, Charlottesville, R.A. Barton, University of Durham, UK.
- 11:45 Activity budget and habitat use of the slender loris (*Loris tardigradus lyderkkerianus*) in Dindigul District, Tamil Nadu, India. K.A.I. Nekaris, Washington University, St. Louis, MO.

SESSION 19: EXECUTIVE SALON II

SKELETAL BIOLOGY VI: CRANIOFACIAL BIOLOGY. CONTRIBUTED PAPERS

Chair: T.M. Cole, University of Missouri, Kansas City.

- 8:00 AM Postnatal growth of the chimpanzee (*Pan troglodytes*) zygomatic bone. P.S. Kyauka, Modesto College, Modesto, CA.
- 8:15 When are browridges homologous? J.H. Prost, University of Illinois, Chicago.
- 8:30 Micro-evolution of the bony nasopharynx in Sudanese Nubia. T.L. Estenson, University New Mexico, Albuquerque.
- 8:45 The morphological changes of intentional cranial deformation: Examining the effects of ICD on paranasal sinus morphology. S.T. Slemmer, University of Tennessee, Knoxville, S. Marquez, Mount Sinai School of Medicine, New York, K. Mowbray, American Museum of Natural History, New York, P.J. Gannon, New York University, NYCEP, New York, J.T. Laitman, Mount Sinai School of Medicine, New York.
- 9:00 Molecular evidence for relationships among branchial arch derivatives: Implications for reconstruction of the upper respiratory tract in fossil hominids. A.L. Balboni, A.D.

- Bergemann, F. Cole, J.S. Reidenberg, J.T. Laitman, Mount Sinai School of Medicine, New York.
- 9:15 Regional cranial stability: Constancy of the mid-mandibulo-facial region as defined by foramina determinants. J.Y. Anderson, University of New Mexico, Albuquerque, Washington University, St. Louis, MO.
- 9:30 The ontogeny of the modern human facial skeleton: How do geographically distinct facial shapes develop? U. Strand Vidarsdóttir, University of Durham, UK, P. O'Higgins, University College, London, UK.
- 9:45 INTERMISSION
- 10:00 Cranial growth in extant African apes. S. Cobb, P. O'Higgins, University College, London, UK.
- 10:15 What happened to sexual dimorphism in the modern adult chin base? S.R. Loth, University of Pretoria, South Africa, M. Henneberg, University of Adelaide, Australia.
- 10:30 Multivariate morphometry: Advantages of direct analysis of 3-dimensional coordinates of the human skull referred to functionally important planes. D.G. McBride, R.A. Benfer Jr., University of Missouri, Columbia.
- 10:45 Fetal development and evolution of the human posterior cranial fossa. N. Jeffery, F. Spoor, University College, London, UK.
- 11:00 The African origins of the South Carolina "Gullah" reconsidered: An anthropometric analysis. N.L. Rogers, University of Tennessee, Knoxville.
- 11:15 Marquesan intra-archipelago cranial variation. V.H. Stefan, University of New Mexico, Albuquerque, P.M. Chapman, South Puget Sound Community College, Olympia, WA.
- 11:30 A comparative craniofacial analysis of 24 Asian and Pacific populations using the neighbor-joining method. N. Seguchi, C.L. Brace, University of Michigan, Ann Arbor.
- 11:45 New World branches, Old World roots: A craniofacial view of a North Asian homeland. A.R. Nelson, University of Michigan, Ann Arbor, D. Tumen, Mongolian Academy of Sciences.

SESSION 20:

PRIMATES V: PRIMATE BIOLOGICAL VARIATION. POSTERS.

Chair: R.L. Anemone, Western Michigan University, Kalamazoo.

FRIDAY, APRIL 14, 2000

SESSION 20

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| Times: | 8:00-8:30 AM | Poster set-up. |
| | 8:30-10:00 AM | Authors of even-numbered posters present for questions. |
| | 10:30 AM-12:00 PM | Authors of odd-numbered posters present for questions. |
| | 12:00-12:30 PM | Poster take-down. |
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1. Ridge breadth comparison between humans and koalas: Does dermatoglyphic similarity imply functional similarity? K.M. Lambert, M. Henneberg, University of Adelaide, Australia.
 2. The geometry of landmarks aligned by generalized Procrustes analysis. D.E. Slice, State University of New York, Stony Brook.
 3. Negative correlations among brain case measurements in *Macaca mulatta* and their possible explanations. B. Behrens, University of New Mexico, Albuquerque.
 4. MRI, image processing, and evaluation of endocranial structures. A.H. Weaver, University of New Mexico, Albuquerque.
 5. Craniofacial dimensions in small anthropoids and prosimians. K. Shahmohammadi, J. Runestad Connour, Western Illinois University, Macomb.
 6. Evolution of the frontal trigon in primates. S.M. Ford, W.D. Moore, Southern Illinois University, Carbondale.
 7. Growth and sexual dimorphism in orang-utan crania: A three-dimensional approach. S.M. Hens, Johns Hopkins University, Baltimore, MD.
 8. Platyrrhine paranasal sinus patterns: A preliminary investigation. J.B. Rossie, Yale University, New Haven, CT.
 9. The sagittal suture and bilateral symmetry: Implications for australopith endocranial reconstruction. C.C. Sherwood, M.S. Yuan, F.X. Subiaul, R.L. Holloway, Columbia University, NYCEP, New York.
 10. Muscle function and temporomandibular joint loading in baboons: Continuous visualization of *in vivo* electromyographic data. M.A. Spencer, University of Colorado, Denver, W.L. Hylander, Duke University Medical Center, Durham, NC.
 11. New dental age standards for baboons (*Papio hamadryas anubis*) and mangabeys (*Cercocebus atys*). R.M. Bernstein, K. Rowan, S.R. Leigh, University of Illinois, Urbana.
 12. Tooth or consequences: Is jaw robusticity the correlated effect of increased tooth size? A.B. Taylor, Samuel Merritt College, Oakland, CA.

13. A re-analysis of the lower molar morphology in *Callicebus* species groups: Implications for feeding adaptations. W.D. Moore, Southern Illinois University, Carbondale.
14. Selection and stress in a population of *Alouatta palliata*: Evidence from molar size and asymmetry. M.A. Everett, D. Degusta, K.V. Milton, University of California, Berkeley.
15. Human brain growth is not unique. A comparative study of eutherian and marsupial carnivores/omnivores and herbivores. C. DeMiguel, M. Henneberg, University of Adelaide, Australia.
16. Brain/body relationships in New and Old World monkeys and apes. J.C. Redmond, A. Sansone, State University of New York, Albany.
17. The energetics of weaning: Testing primate models of body and brain size ontogeny and evolution. H.T. Wood, University College, London, UK.
18. Differences in the brainstem facial motor nucleus in *Erythrocebus patas* and *Macaca fascicularis*: A qualitative and morphometric analysis. T.A. Peburn, NYCEP, CUNY, K.A. Sheridan, N.M. Kheck, Mt. Sinai School of Medicine, NY, P.R. Hof, Mt. Sinai School of Medicine, NY, NYCEP, New York University, J. Gasdogas, New York University, J. Erwin, Diagnon Corp, MD, P.J. Gannon, NYCEP, Mt. Sinai School of Medicine, NY, New York University, NY.
19. A comparative PET study of linguistic processing in humans and language-competent chimpanzees. J. Rilling, C. Kilts, Emory University, Atlanta, GA, S. Williams, M. Beran, Georgia State University, Atlanta, M. Giroux, J.M. Hoffman, Emory University, Atlanta, GA, S. Rapoport, National Institutes on Aging, S. Savage-Rumbaugh, D. Rumbaugh, Georgia State University, Atlanta.
20. Preliminary light microscopic study of cortical synapses in the male olive baboon (*Papio hamadryas anubis*). P.B. Park, J.L. Nuñez, J.M. Juraska, University of Illinois, Urbana.
21. Primate muscle insertions: What does size tell you? A.C. Zumwalt, C.B. Ruff, Johns Hopkins University School of Medicine, Baltimore, MD, C.A. Wilczak, Villa Julie College, Stevenson, MD.
22. Application of a predictive model of segment inertial properties to the study of primate quadrupedalism. D.A. Raichlen, The University of Texas, Austin.
23. Histological analysis of shoulder and hip joints in lemurs, bats, and mice. T.D. Smith, C.M. Dion, A.M. Burrows, Slippery Rock University, Slippery Rock, PA, M.W. Hamrick, Kent State University, OH.

24. Body composition in a juvenile gorilla (*Gorilla gorilla gorilla*) compared to adult gorillas. R.K. McFarland, Cabrillo College, Aptos, CA, A.L. Zihlman, University of California, Santa Cruz.
25. Gradient phenomena, hominoid body plans, and locomotor function. D. Swartz, Seton Hall University, New York.
26. Reassessing the hominoid vermiform appendix. R.E. Fisher, Yale University, New Haven, CT.
27. Prosimian hypometabolism revisited: The influence of body composition. J.J. Snodgrass, W.R. Leonard, M.L. Robertson, Northwestern University, Evanston, IL.
28. Skeletal and dental pathologies of aging in adult western lowland gorillas: A preliminary report. K.A. Nichols, A.L. Zihlman, University of California, Santa Cruz.
29. Anterior myodural bridge in the cranio-spinal space: A reciprocal relation with the posterior myodural bridge. R.T. Koritzer, R.R. Harris, University of Maryland Dental School, Baltimore.
30. A research resource for comparative and evolutionary primate biology. J. Erwin, P. Hof, P. Gannon, R. Holloway, D. Perl, Bioqual, Inc, Rockville, MD.
31. Brain morphology, MRI data, and landmark-based analyses of form. K. Aldridge, P.E. Barta, G.D. Pearlson, J.T. Richtsmeier, Johns Hopkins University School of Medicine, Baltimore, MD.
32. Gray-white volumes of the major lobes of the human cerebrum: An MRI study using an automated segmentation algorithm. J.S. Allen, University of Iowa, Iowa City, H. Damasio, T.J. Grabowski, J. Cole, University of Iowa College of Medicine, R.J. Frank, Lawrence Livermore National Laboratories, CA.
33. Brain size ontogeny and evolution in *Papio*. L.S. Buchanan, University of Illinois, Urbana.

SESSION 21: ROSE GARDEN / ROSE GARDEN FOYER

PRIMATES VI: SOCIAL BEHAVIOR AND METHODS. POSTERS.

Chair: D.S. Sprague, National Institute of Agroenvironmental Sciences, Tsukuba, Japan.

Times:	8:00-8:30 AM	Poster set-up.
	10:30 AM-12:00 PM	Authors present for questions.
	12:00-12:30 PM	Poster take-down.

34. Behavioral variability in ring-tailed lemurs (*Lemur catta*). A.M. Boyd, East Carolina University, Greenville, NC.
35. Preliminary observations on *Galago moholi* and *Otolemur crassicaudatus* in Makapansgat Valley, South Africa. L.T. Nash, K. Weisenseel, Arizona State University, Tempe
36. Social networks in ring-tailed lemurs (*Lemur catta*). L.D. Wolfe, East Carolina University, Greenville, NC.
37. A comparison of male scent-marking behavior in two species of Lemuridae. L. Gould, University of Victoria, Victoria, BC, Canada, D.J. Overdorff, University of Texas, Austin.
38. Huddling behavior in bearded saki monkeys (*Chiropotes satanas chiropotes*) of Bolivar State, Venezuela. R.V. Araya, New York University, NYCEP, New York, A. Peetz, University of Bielefeld, Germany.
39. A preliminary study of the female copulation call in long-tailed macaques (*Macaca fascicularis*): Testing current hypotheses. G.R. Goldstein, A. Fuentes, Central Washington University, Ellensburg, K.G. Suaryana, I.D.K. Harya Putra, Primate Research Center at Universitas Udayana, Bali, Indonesia.
40. Comparison of census methods to record density and group size of *Ateles geoffroyi*, *Alouatta palliata*, and *Cebus capucinus* in lowland tropical rainforest in Costa Rica. J.D. Pruettz, Miami University, Oxford, OH, H.C. Leason, California State University, Fullerton.
41. Social proximity to a postpartum chimpanzee and her infant in a captive group. L.G. Luecke, Southwest Texas State University, San Marcos, S.P. Lambeth, S.J. Schapiro, University of Texas, MD Anderson Cancer Center, Bastrop, TX.
42. Censusing a primate community in Brazil: A multimethod approach. A.M. Calouro, Universidade Federal do Acre, Brazil, P.A. Garber, A. Stone, University of Illinois, Urbana, W. de Aquino Chaves, Universidade Federal do Acre, Brazil.
43. Conflict and post-conflict behavior in small group of chimpanzees (*Pan troglodytes*). N.M. Malone, L.L. Vaughan, A. Fuentes, Central Washington University, Ellensburg.
44. How modal are positional behaviors - application of a new methodology, Labanotation, in the study of primate behavior? K.J. Carlson, Indiana University, Bloomington, R. Hardiway, North Carolina State University, Raleigh, C. Holladay, F. Knapczyk, J. Satkoski, S. Schuck, G. Thomas, Indiana University, Bloomington.
45. A physico-chemical fieldkit for ecological studies. N.J. Dominy, N. Yamashita, H.C. Essackjee, University of Hong Kong, D. Osorio, University of Sussex, B.W. Darvell, Prince Philip Dental Hospital, Hong Kong, P.W. Lucas, University of Hong Kong.

46. Evidence for the existence of culture in captive chimpanzees (*Pan troglodytes*)? M. Hook, R. Stavisky, S. Lambeth, J. Perlman, S. Schapiro, M. Bloomsmith, University of Texas, MD Anderson Cancer Center, Bastrop, TX.

SESSION 22: ROSE GARDEN / ROSE GARDEN FOYER

GENETICS IV / PRIMATES VII: PRIMATE GENETICS. POSTERS.

Chair: A.G. Comuzzie, Southwest Foundation for Biomedical Research, San Antonio.

Times: 8:00-8:30 AM Poster set-up
 10:30-12:00 PM Authors present for questions.
 12:00-12:30 PM Poster take-down.

47. Project silver: An ape genome project toward deciphering genetic changes responsible for creating humanness. N. Saitou, T. Kitano, Y.-H. Liu, R. Noda, H. Kobayakawa, National Institute of Genetics, Mishima, Japan.
48. Mapping chromosome 18 in the rhesus macaque (*Macaca mulatta*). L.R. Ludvico, S.L. Clifford, K. Mosman, K. Massey, Q. Tran, K.E. Chambers, S. Slifer, S. Ostrower, Q. Ngo, M. Keeling, W.H. Stone, Trinity University, San Antonio.
49. An expanded linkage map of chromosome 20 (PHA20) in the baboon (*Papio hamadryas*). K.E. Chambers, D.E. Newman, M.C. Mahaney, P.A. Morin, J. Rogers, Southwest Foundation for Biomedical Research, San Antonio.
50. The microevolutionary force of genetic drift in black lion tamarin (*L. chrysopygus*) populations. B.M. Perez-Sweeney, Columbia University, New York, C. Valladares-Padua, University of Brasilia, Brazil, D.J. Melnick, Columbia University, New York.
51. A preliminary molecular phylogeny of the guenons. R.L. Raaum, T.R. Disotell, C.J. Jolly, D.W. Wildman, P.T. Telfer, New York University, NYCEP.
52. Evolution of mitochondrial DNA in baboons from the Horn of Africa and Arabian Peninsula. D.E. Wildman, P.T. Telfer, C.J. Jolly, T.R. Disotell, New York University, NYCEP, T.J. Bergman, J.E. Phillips-Conroy, Washington University, St. Louis, MO, T.K. Newman, Southwest Foundation for Biomedical Research, San Antonio.
53. An expanded mtDNA phylogeny and its implications for gene flow and biogeography in baboons. T.K. Newman, Southwest Foundation for Biomedical Research, San Antonio, D.E. Wildman, New York University, NYCEP, New York, T.J. Bergman, Washington University, St. Louis, MO, J. Rogers, Southwest Foundation for Biomedical Research, San Antonio.

FRIDAY, APRIL 14, 2000

SESSION 22 / SESSSION 23

- 54. Detection of baboon endogenous virus (BaEV) in a natural population of anubis and hamadryas baboons. M. Uddin, New York University, NYCEP.
- 55. Nuclear DNA variation of Aldolase A intron V in *Ateles*. A.C. Collins, University of Wisconsin, Milwaukee.
- 56. What subspecies are they? Mitochondrial DNA and Y chromosome diversity in captive *Pan troglodytes*. A.C. Stone, University of New Mexico, Albuquerque, R. Bonner, University of Arizona, Tucson, C.M. Lewis, University of New Mexico, Albuquerque, M. Hammer, University of Arizona, Tucson.
- 57. Mitochondrial DNA analysis of Spider Monkeys: A non-invasive technique. K.A. Horsburgh, E. Matisoo-Smith, University of Auckland, New Zealand, J.S. Allen, University of Iowa, Iowa City.

FRIDAY, 12:00-2:00PM, APRIL 14, 2000

AAPA LUNCHEON, FIESTA PAVILION

Speaker: Clifford Jolly, New York University, "*A Proper Study of Mankind*"

FRIDAY, AFTERNOON, APRIL 14, 2000

SESSION 23: TEXAS A

PRIMATES VIII: PRIMATE BIOLOGICAL VARIATION. LOCOMOTION AND POSTCRANIA. CONTRIBUTED PAPERS.

Chair: L. Shapiro, University of Texas, Austin.

- 2:00 PM Skeletal variability and functional morphology. J.C. Ohman, John Moores University, Liverpool, UK, C.O. Lovejoy, Kent State University, OH, S.W. Simpson, B.L. Latimer, Case Western Reserve University, Cleveland Museum of Natural History, OH.
- 2:15 The relationship between body size and postcranial variation in hominoids and several monkeys. P.S. Vinyard, Washington University, St. Louis, MO.
- 2:30 Ontogenetic variation in scapular form in African apes. S.E. Inouye, The National College of Chiropractic, Lombard, IL, A.B. Taylor, Samuel Merritt College, Oakland, CA.
- 2:45 The evolution of hominoid hands: Growth scaling registers with posterior HOXD expression. C.O. Lovejoy, P.L. Reno, Kent State University, OH, M.A. McCollum, Kent State University, Case Western Reserve University, Cleveland, OH, M.W. Hamrick, Kent State University, OH, M.J. Cohn, University of Reading, UK.

FRIDAY, APRIL 14, 2000

SESSION 23 / SESSION 24

- 3:00 Predicting catarrhine hand bone lengths and their inferential value to the understanding of the evolution of locomotion. B.T. Watkins, University of Liverpool, England, J.C. Ohman, Liverpool John Moores University, Liverpool, England.
- 3:15 Quantitative analysis of trabecular bone structure in the femur of lorisooid primates using high resolution x-ray computed tomography. T.M. Ryan, The University of Texas, Austin.
- 3:30 Analysis of femoral head trabecular architecture using μ CT: Evidence from some anthropoids and lorisooids. R.J. Fajardo, State University of New York, Stony Brook, L.M. MacLatchy, Boston University, MA, R. Muller, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA.
- 3:45 Cortical bone distribution in the femoral neck of strepsirrhine primates. B. Demes, W.L. Jungers, C.J. Walker, State University of New York, Stony Brook.
- 4:00 INTERMISSION
- 4:15 Mediolateral loading patterns across the knee joint in catarrhine primates. K. Ahluwalia, State University of New York, Stony Brook.
- 4:30 The functional characteristics of the ape foot musculature. G.P. Jones, Arizona State University, Tempe.
- 4:45 The role of lateral bending of the spine in prosimian quadrupedalism. L.J. Shapiro, University of Texas, Austin, B. Demes, State University of New York, Stony Brook, J. Cooper, Purdue University, W. Lafayette, IN.
- 5:00 The kinematics of cursoriality: How patas monkeys differ from other primate quadrupeds. J.D. Polk, State University of New York, Stony Brook.
- 5:15 Effects of substrate size and orientation on quadrupedal walking in *Cheirogaleus*. N.J. Stevens, State University of New York, Stony Brook.
- 5:30 3D-kinematics of vertical climbing in apes. K. Isler, University of Zürich, Switzerland.
- 5:45 The effects of body size and climate on *Macaca* fore- and hindlimb lengths. K.J. Weinstein, University of Florida, Gainesville.

SESSION 24: TEXAS B

*PALEOANTHROPOLOGY VI: "PROCESSES IN THE EMERGENCE OF 'MODERN' HUMANS".
SYMPOSIUM.*

Darwin predicted that Africa would prove to be the locus of human origins. His insight has been sustained by subsequent work in archaeology, genetics, and paleontology of a nature that was scarcely dreamed of in

his day. Questions remain concerning the time of the emergence of human form from non-human antecedents, if this involved an initial spread and subsequent replacement, and whether the process of transformation was restricted to Africa itself or involved regionally coordinated change of a single widespread species. Especially important is the matter of why anything like 'modern' form emerged at all.

Archaeology provides evidence for the effective uniformity of hominid life ways following the initial spread out of Africa in the Lower Paleolithic. Where the archaeological record shows the appearance of a change in life ways, a consideration of evolutionary dynamics can show how this led to the consequent change towards sapient status indicated by the skeletal evidence throughout the entire range of hominid occupation where the cultural manifestation in question occurs. It can also explain why the process of the emergence of 'modern' form was regionally piecemeal and not locally coordinated.

Genetic data can cast light on matters such as population size, the effect of gene flow, and possible time of differentiation. Skin color gradients in Australia can provide an index for calibration that will allow calculation of the time needed for the manifestations in Europe and northeast Asia. Assessment of craniofacial pattern similarities of past and present populations can suggest not only population relationships but also matters of population continuity versus replacement. Locale and antiquity of cooking technology can account for the observed differences in tooth size, and the locale and antiquity of projectile usage can be used to treat the appearance of post-cranial gracilization.

Organizer

and Chair: C. L. Brace, The University of Michigan, Ann Arbor.

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| 2:00 PM | Introduction, C.L. Brace, The University of Michigan, Ann, Arbor. |
| 2:15 | The lower to Middle Paleolithic shift in Europe: Continuity, replacement or diffusion? A. E. Marks, Southern Methodist University, Dallas. |
| 2:30 | The Middle-Upper Paleolithic transition in Western Eurasia. G.A. Clark, Arizona State University, Tempe. |
| 2:45 | Population genetic models and modern human origins. J.H. Relethford, State University of New York College at Oneonta. |
| 3:00 | The emergence of modern humans in Africa: Evidence from nuclear genetic haplotype data. S. Tishkoff, Pennsylvania State University, University Park, T. Jenkins, University of the Witwatersrand, South Africa, G. Destro-Bisol, Universite di Roma "La Sapienza", Rome, Italy, K.K. Kidd, Yale University, New Haven, CT, A.G. Clark, Pennsylvania, State University, University Park. |
| 3:15 | A Y-chromosome perspective on the Jomonese component of the contemporary Japanese gene pool. M. Hammer, University of Arizona, Tucson, S. Horai, National Institute of Genetics, Mishima, Japan, W. Kim, Dankook University, Choong Nam, Korea, K. Omoto, International Research Center for Japanese Studies, Kyoto, Japan, M. Stoneking, |

FRIDAY, APRIL 14, 2000

SESSION 24 / SESSION 25

Pennsylvania State University, University Park, H. Park, T. Karafet, University of Arizona, Tucson.

3:30 INTERMISSION

3:45 Lifeway changes as shown by postcranial skeletal robustness. C. B. Ruff, Johns Hopkins University, Baltimore, MD, E. Trinkaus, Washington University, St Louis, MO, B. Holt, University of Missouri, Columbia.

4:00 Human skin color as a measure of time *in situ*. M. Henneberg, University of Adelaide, Australia, C.L. Brace, University of Michigan, Ann Arbor.

4:15 Mosaic evolution and modern human origins: The picture from the Levant. C.B. Quintyn, University of Michigan, Ann Arbor.

4:30 Tooth size differences and the antiquity of cooking. C. L. Brace, University of Michigan, Ann Arbor.

4:45 DISCUSSANT: B.A. Wood, George Washington University, Washington, DC.

5:00 DISCUSSANT: L. Jorde, University of Utah, Salt Lake City.

5:15 DISCUSSANT: K.M. Weiss, Pennsylvania State University, University Park.

5:30 DISCUSSANT: M. Cartmill, Duke University, Durham, NC.

SESSION 25: TEXAS C

SKELETAL BIOLOGY VII / PALEOPATHOLOGY IV: "THE NEW YORK AFRICAN BURIAL GROUND PROJECT, 2000." SYMPOSIUM.

This symposium reports findings on the African Burial Ground, an 18th century cemetery used by Africans who were enslaved in the City of New York. More than 400 individuals comprise the skeletal population, making it the largest American colonial population currently available for study. Six years of anthropological and interdisciplinary research have been completed, with two years remaining for further specialized studies. Robust results on the entire population are presented here, which address the questions of the African origins, forced migration, occupations, morbidity, fertility, and mortality of New York Africans. This session focuses on the skeletal biology of the African Burial Ground population, while providing some of the cultural and historical context, past and present, in which the interpretation of the biological patterns is rooted. Generally, enslaved Africans persevered in a dehumanizing environment of multiple, high stressors. The interdisciplinary interpretations of each paper show how biological effects may have occurred in 18th century New York's peculiar circumstance. The collaboration with the African American and African public on this project will be shown to have both enhanced the scientific interpretation and public significance of the project..

THE NEW YORK AFRICAN BURIAL GROUND PROJECT: PART I, ORIGINS.

Chair: F.L.C. Jackson, University of Maryland, College Park.

- 2:00PM Introduction: A publicly engaged, biocultural project. M.L. Blakey, Howard University, Washington, DC.
- 2:15 Historical and archaeological evidence of the origins of enslaved Africans in Colonial New York. E.G. Medford, Howard University, Washington, DC, W. Perry, Central Connecticut State University, New Britain, CT, L. Heywood, Howard University, Washington, DC, J. Thornton, Millersville University, Millersville, PA, K. Agorsah, Portland State University, Portland, OR, C. Decorse, Syracuse University, Syracuse, NY, A. Holl, University of California, San Diego.
- 2:30 From African to African American: Insight on the formation of African American mtDNA variation. R.A. Kittles, M. Doura, N. Sylvester, Howard University, Washington, DC, F.L.C. Jackson, University of Maryland, College Park, M.L. Blakey, Howard University, Washington, DC.
- 2:45 Strategies for overcoming the current limitations on comparative genetic studies of the African Atlantic Diaspora. F.L.C. Jackson, University of Maryland, College Park, K.M. Jackson, MCP Hahnemann University, Philadelphia, L.F., Jackson, S. Khan, University of Maryland, College Park, L. Heywood, Howard University, Washington, DC, M. Raslan, University of Maryland, College Park, X. Johnson, George Washington University, Washington, DC, R.A. Kittles, Howard University, Washington, DC.
- 3:00 A preliminary affinity analysis of crania from the New York Burial Ground. S. Keita, K. Shujaa, Howard University, Washington, DC.
- 3:15 Chemical analyses of the places of birth and migration of the Africans of Colonial New York. A.H. Goodman, Hampshire College, and University of Massachusetts, Amherst, J. Reid, Hampshire College, Amherst, MA, M.E. Mack, Howard University, Washington, DC, J. Jones, University of Massachusetts, Amherst, Howard University, Washington, DC, C. Spaulding, S. Keydel, Hampshire College, Amherst, MA, R-J. Song, University of Massachusetts, Amherst, D. Amarasiriwardena, Hampshire College, Amherst, MA, M.L. Blakey, Howard University, Washington DC.
- 3:30 Dental evidence of health in African-born and American-born children. M.E. Mack, M.L. Blakey, Howard University, Washington, DC, A.H. Goodman, Hampshire College, Amherst, MA.
- 3:45 DISCUSSANT: G.J. Armelagos, Emory University, Atlanta.

FRIDAY, APRIL 14, 2000

SESSION 25 / SESSION 26

4:00 INTERMISSION

THE NEW YORK AFRICAN BURIAL GROUND PROJECT: PART II, QUALITY OF LIFE

Chair: M. L. Blakey, Howard University, Washington, DC.

4:15 PM Political economy of forced migration and sex ratio. J.E. Howson, Howard University, Washington, DC, S.K. Goode-Null, University of Massachusetts, Amherst, M.L. Blakey, E.L. Brown, Howard University, Washington, DC, L.M. Rankin-Hill, University of Oklahoma, Norman.

4:30 Political economy of mortality of enslaved Africans. M.L. Blakey, M.E. Mack, E.G. Medford, S.D. Wilson, A. Hankin, Howard University, Washington, DC.

4:45 Musculoskeletal indicators of work stress in enslaved Africans in Colonial New York: Functional anatomy of the axial and appendicular skeleton. C.J. Terranova, Howard University, Washington, DC, C. Null, University of Massachusetts, Amherst, K.J. Shujaa, University of Pennsylvania, Philadelphia, E.G. Medford, Howard University, Washington, DC.

5:00 Degenerative indicators of work stress in enslaved Africans in Colonial New York. R.L. Watkins, University of North Carolina, Chapel Hill, A.J. Hankin, M.E. Mack, Howard University, Washington, DC.

5:15 Infectious disease in enslaved Africans of Colonial New York: Descriptive indicators and the treponema question. C. Null, University of Massachusetts, Amherst, M.L. Blakey, S.H.H. Carrington, Howard University, Washington, DC, K.J. Shujaa, University of Pennsylvania, Philadelphia, F.L.C. Jackson, University of Maryland, College Park.

5:30 Growth and development of enslaved Africans in Colonial New York. K.J. Shujaa, University of Pennsylvania, Philadelphia, M.E. Mack, C.J. Terranova, D.C. Lambert, Howard University, Washington, DC.

5:45 Political economy of fertility and population growth among enslaved Africans in Colonial New York. L.M. Rankin-Hill, University of Oklahoma, Norman, M.L. Blakey, S.H.H. Carrington, J.E. Howson, Howard University, Washington, DC.

6:00 DISCUSSANT: D.J. Ortner, Smithsonian Institution, Washington, DC.

SESSION 26: EXECUTIVE SALON II

GENETICS V / HUMAN BIOLOGY V: GENETICS AND HUMAN MOLECULAR EVOLUTION. CONTRIBUTED PAPERS.

- Chair:* D.A. Merriwether, University of Michigan, Ann Arbor.
- 2:00 PM A hierarchical analysis of Y-chromosome specific variation in Australian Aboriginal people. R.J. Mitchell, K. Rogan, La Trobe University, Melbourne, Australia, R. van Oorschot, Victorian Forensic Science Centre, Melbourne, Australia, C. Tyler-Smith, University of Oxford, UK.
- 2:15 High-throughput genotyping of Y-chromosome SNPs by fluorescence monitoring of product melting curves. J.M. Akey, B. Su, L. Jin, University of Texas School of Public Health, Houston, TX.
- 2:30 Comparing patterns of Y chromosome and mitochondrial DNA variation in the Hominoidea. T.K. Altheide, M.F. Hammer, University of Arizona, Tucson.
- 2:45 Y chromosome evidence for a northward migration of modern humans in East Asia during the last Ice Age. B. Su, J.M. Akey, R. Chakraborty, L. Jin, University of Texas School of Public Health, Houston.
- 3:00 Origins of the Polynesian people: New insights from the Y chromosome. R. Deka, University of Cincinnati, B. Su, L.Jin, R. Chakraborty, University of Texas at Houston, J. Martinson, Oxford University, UK, P. Underhill, P. Oefner, Stanford University, Palo Alto, CA, S.T. McGarvey, Brown University, Providence, RI, N. Saha, Australian National University, Canberra, M.D. Shriver, Pennsylvania State University, University Park, J. Chu, Chinese Academy of Medical Sciences, Kunming, China.
- 3:15 Human Y chromosome variation across England and Wales. M.G. Thomas, University College, London, D.A. Weiss, University of California, Davis.
- 3:30 Aspects of the European prehistory, inferred from nuclear and mitochondrial DNA diversity. G. Barbujani, L. Simoni, Universities of Ferrara and Bologna, Italy.
- 3:45 INTERMISSION
- 4:00 Mitochondrial DNA diversity in lower Amur River populations, and its implications for the genetic history of the North Pacific and the New World. T.G. Schurr, Southwest Foundation for Biomedical Research, San Antonio, E.B. Starikovskaya, R.I. Sukernik, Institute of Cytology and Genetics, Novosibirsk, Russia, A. Torroni, Università di Roma "La Sapienza" Rome, Italy, D.C. Wallace, Emory University, Atlanta.
- 4:15 The Mongolian Diaspora? C.J. Kolman, University of Florida, Gainesville, J. Long, NIAAA, NIH, Bethesda, Maryland, N. Sambuughin, L. Goldfarb, NINDS, NIH, Bethesda, Maryland.
- 4:30 Context of mtDNA variation in populations from the Columbia Plateau. R.S. Malhi, University of California, Davis.

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SESSION 26 / SESSION 27

- 4:45 The genetic prehistory of California's Central Valley. J.A. Eshleman, University of California, Davis.
- 5:00 Mitochondrial DNA analysis of Choctaw and Menomonee hair shafts from the Boas collection. L. Flourney Baker, University of Tennessee, Knoxville.
- 5:15 Testing a hypothesis of prehistoric migration in Southeastern South America using mtDNA haplogroup and D-Loop sequence variation. G.S. Cabana, F. Rothhammer, D.A. Merriwether, University of Michigan, Ann Arbor.
- 5:30 Estimating gene flow within and between Native South American populations. K.L. Hunley, D.A. Merriwether, University of Michigan, Ann Arbor.
- 5:45 MtDNA variation in New Guinea: Implications for the peopling of the Pacific. F.A. Kaestle, Yale University, New Haven, CT, D.A. Merriwether, University of Michigan, Ann Arbor, J.S. Friedlaender, Temple University, Philadelphia, PA.

SESSION 27: ROSE GARDEN / ROSE GARDEN FOYER

DENTAL ANTHROPOLOGY II / SKELETAL BIOLOGY VIII: "PATTERNS OF PHYSIOLOGICAL STRESS IN PRIMATES: THE DENTAL EVIDENCE." POSTER SYMPOSIUM.

This symposium is the first to explore the use of developmental dental defects as stress indicators in primates. Only during the past 15 years have researchers begun to study dental defects in diverse primate species and populations. Dental defects have the potential to reveal aspects of primate life history such as the frequency and timing of metabolic disruption during the prenatal, infancy and juvenile periods. Papers in this symposium investigate the relationship between enamel defects and sources of physiological stress, examine the influence of sex, maturation length, and taxonomic status on the manifestation of enamel defects, expand on the number of modern and fossil primates studied, and introduce new methods for accurately aging defects.

Organizers

and Chairs: D. Guatelli-Steinberg, University of Oregon, Eugene, M. Skinner, Simon Fraser University, Burnaby, BC, Canada.

Times:	2:00-2:30 PM	Poster set-up.
	2:30-4:00 PM	Authors present for questions.
	4:00-4:30 PM	Discussion, Executive Salon 4
	5:30-6:00 PM	Poster take-down.

1. Primate enamel hypoplasias as indicators of metabolic stress, adaptation, and evolution. R.B. Eckhardt, Pennsylvania State University, University Park.

2. Defining chronological growth standards for known fractions of tooth crown height in primate anterior teeth. D.J. Reid, University of Newcastle-Upon-Tyne, UK, S. Hillson, M.C. Dean, University College, London, UK.
3. The relationship of maturation length to interspecific variation in enamel hypoplasia. E.A. Newell, Elizabethtown College, Elizabethtown, PA.
4. Interpreting sex differences in linear enamel hypoplasia in non-human primates. D. Guatelli-Steinberg, University of Oregon, Eugene, E.A. Newell, Elizabethtown College, Elizabethtown, PA.
5. Can giving birth show up in tooth development? J.E. Bowman, University of Pennsylvania, Philadelphia.
6. Enamel hypoplasia in South African early hominids: A reappraisal. J. Moggi-Cecchi, University of the Witwatersrand, Johannesburg, South Africa.
7. Enamel hypoplasia in the deciduous teeth of great apes: Variation in prevalence and timing of defects. J.R. Lukacs, University of Oregon, Eugene.
8. Periodicity of repetitive linear enamel hypoplasia in Asian and African apes. M. Skinner, Simon Fraser University, Burnaby, B.C., Canada.
9. Linear enamel hypoplasia in great apes: Analysis by genus and locality. D. Hannibal, University of Oregon, Eugene.
10. Growth disruption and linear enamel hypoplasia in a population of known age and sex. T. King, Natural History Museum, London, UK, S. Hillson, University College, London, UK, L.T. Humphrey, Natural History Museum, London, UK.

SESSION 28: ROSE GARDEN / ROSE GARDEN FOYER

PRIMATES IX: "CURRENT ISSUES IN PRIMATE BIOGEOGRAPHY". POSTER SYMPOSIUM.

The underlying causality of primate biogeography is the subject of considerable debate. Numerous ecological and historical theories have been proposed to explain the distribution and diversity of extant species. In the past, researchers tended to focus on either historical or ecological explanations for primate biogeography. The purpose of this proposed symposium is to provide new data and techniques on the joint roles of ecological and historical biogeographic processes. New genetic, survey, or morphological data will be presented for prosimians, New World monkeys, Old World monkeys, and apes. Using the latest statistical and GIS techniques, symposiasts will describe novel approaches to understanding patterns of primate distribution and diversity. Participants will also discuss new theories on how temporal patterns in hunting and habitat destruction have affected the biogeography of primates.

FRIDAY, APRIL 14, 2000

SESSION 28 / SESSION 29

Organizers

and Chairs: S.M. Lehman, J.G. Fleagle, State University of New York, Stony Brook.

Times:	2:00-2:30 PM	Poster set-up.
	4:00-5:30 PM	Authors present for questions.
	5:30-6:00 PM	Discussion, Executive Salon 4
	6:00-6:30 PM	Poster take-down.

11. The behavior of extinction: Predicting the incidence of lemur populations in fragmented habitats of SE Madagascar. A. Dehgan, B. Patterson, The University of Chicago, and Field Museum of Natural History, Chicago, IL, P.C. Wright, State University of New York, Stony Brook.
12. Biotic and abiotic factors as predictors of species richness in Madagascar. P.M. O'Connor, N.J. Stevens, State University of New York, Stony Brook.
13. Ecological and historical correlates to the biogeography of *Cacajao*. A. Barnett, University of Surrey, Roehampton, UK, S.M. Lehman, State University of New York, Stony Brook.
14. Historical biogeography of the tamarins and squirrel monkeys: Evidence from molecular phylogeny, estimates of divergence times, and geological events. S. Cropp, University of Chicago, IL, S. Boinski, University of Florida, Gainesville.
15. Nested distribution patterns of species composition in Guyanese primates. S.M. Lehman, State University of New York, Stony Brook.
16. Biogeography and evolution of the *Cercocebus* - *Mandrillus* clade. W.S. McGraw, The Ohio State University, Mansfield, OH, J.G. Fleagle, State University of New York, Stony Brook.
17. Distribution and diversity of primates in Guyana. R.W. Sussman, J. Phillips-Conroy, Washington University, St Louis, MO, S.M. Lehman, State University of New York, Stony Brook.
18. Primate biogeography and ecology on the Sunda Shelf islands: A paleontological and zooarchaeological perspective. T. Harrison, J.S. Krigbaum, New York University.
19. Baboon biogeography. C. J. Jolly, New York University.

SESSION 29: ROSE GARDEN / ROSE GARDEN FOYER

SKELETAL BIOLOGY IX / HUMAN BIOLOGY VI: HUMAN BIOLOGICAL VARIATION. POSTERS.

Chair: Annie Burrows, Slippery Rock University, Slippery Rock, PA.

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| Times: | 2:00-2:30 PM | Poster set-up. |
| | 2:30-4:00 PM | Authors of even-numbered posters present for questions. |
| | 4:00-5:30 PM | Authors of odd-numbered posters present for questions. |
| | 5:30-6:00 PM | Poster take-down. |
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20. Do different kinds of cranial deformation affect the incidence of wormian bones in human crania? V. Dean O'Loughlin, Indiana University, Bloomington.
 21. Growth of the cranial base following suturectomy in rabbits with coronal suture synostosis. D.A. Putz, M.P. Mooney, University of Pittsburgh, PA., T.D. Smith, A.M. Burrows, Slippery Rock University, Slippery Rock, PA, G.M. Cooper, J. Dechant, University of Pittsburgh, PA, H.W. Losken, Children's Hospital, Pittsburgh, PA, M.I. Siegel, University of Pittsburgh, PA.
 22. Directional asymmetry in plagiocephaly without synostosis and unicoronal synostosis. C.J. Valeri, The Johns Hopkins University, Baltimore, MD, T.M. Cole III, University of Missouri, Kansas City, S. Lele, University of Alberta, Edmonton, J.T. Richtsmeier, Johns Hopkins University, Baltimore, MD.
 23. Reversal of asymmetric growth in the cranial base following neurocranial surgery in unicoronal craniosynostosis. V.B. DeLeon, Johns Hopkins University, Baltimore, MD, T.M. Cole III, University of Missouri, Kansas City, S. Lele, University of Alberta, Edmonton, J.L. Marsh, Washington University School of Medicine, St. Louis, MO, J.T. Richtsmeier, Johns Hopkins University, Baltimore, MD.
 24. Three-dimensional loading and growth of the zygomatic arch: Pigs versus macaques. K.L. Rafferty, S.W. Herring, University of Washington, Seattle.
 25. Mapping genes for quantitative human traits. S.A. Novak, M. Leppert, J. McCullough, University of Utah, Salt Lake City.
 26. Observations on the orbital groove in South African blacks. G.T. Lebona, A.I. Ejorh, Medical University of Southern Africa, Medunsa, South Africa.
 27. Human forearm muscle architecture. J.M. Collaco, S.W. Simpson, Case Western Reserve University, Cleveland, OH.
 28. Variation in the human lateral femoral circumflex artery. A.M. Burrows, D.R. Keelor, Slippery Rock University, Slippery Rock, PA.
 29. Frequencies of accessory bones in the human foot. J.H. Lacoboulos, Neumann College, Aston, PA, A.M. Burrows, Slippery Rock University, Slippery Rock, PA.

30. Effects of formalin fixation and desiccation on bone strain patterns in primate long bones. D.A.Weiss, University of California, Davis, CA, D.J. Daegling, California College of Podiatric Medicine, San Francisco.
31. Trabecular architecture of metacarpal heads in catarrhines: A preliminary report. M. Zylstra, University of Texas, Austin.
32. Longitudinal bone density data of men: A consideration of rates of change of bone densitometry variables associated with increasing age. C.R. Tillquist, W.A. Stini, University of Arizona, Tucson.
33. Tetracycline protects against trabecular bone loss in ancient Nubian populations. A. Han, G.J. Armelagos, Emory University, Atlanta, GA, K.Collins, Duke University, Durham, NC, K. Kohlbacher, State University of New York, Binghamton.
34. The morphology and survival of the mineralised osteocyte remnant. L.S. Bell, C. Jones, The Natural History Museum, London, UK, S.Y. Ali, University College, Royal National Orthopaedic Hospital Trust, Stanmore, UK, P.A. Andrews, The Natural History Museum, London, UK.
35. Prospective, 3-year study of the effects of estrogen on oral and postcranial bone change. C.F. Hildebolt, T.K. Pilgram, N. Yokoyama-Crothers, M. Dotson, J. Muckerman, J. Hauser, S. Cohen, E. Kardaris, M. Vannier, R. Civitelli, Washington University, St. Louis, MO, J. Hanes, M. Shrout, Medical College of Georgia, Augusta.
36. Earlier peak values indicate more rapid regression. A. Siniarska, N.Wolanski, Center for Scientific Research and Postgraduate Studies, Merida, Yucatan, Mexico, and Institute of Ecology of the Polish Academy of Sciences, Warsaw.
37. Prison records: Another source of anthropometric data. G.J. Guthrie, Buffalo State College, NY.
38. A comparison of bilateral asymmetry in skeletal maturation between upper body and lower body epiphyses. A.M. Albert, University of North Carolina, Wilmington, NC.
39. Secular trend in birthweight among the Purari delta population, Papua New Guinea. S. Ulijaszek, University of Oxford, UK.
40. Longitudinal growth data from Malian adolescent girls: Implications for catch-up growth. L.R. Pawloski, George Mason University, Fairfax, VA.
41. What can your height tell about you: Education level and body height in Portuguese young males. C. Padez, Universidade de Coimbra, Portugal.

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SESSION 29 / SESSION 30

42. The fit of the Preece-Baines model I to statural data of Basque males from the city of Bilbao (Basque Country). A.G. Appraiz, University of Kansas, Lawrence.
43. Limb proportions in modern Portuguese known sex and age skeletal samples. H. Cardoso, S.N. Wasterlain, E. Cunha, Universidade de Coimbra, Portugal.

SESSION 30: ROSE GARDEN / ROSE GARDEN FOYER

HUMAN BIOLOGY VII: BIOLOGICAL VARIATION / HEALTH AND DISEASE. POSTERS.

Chair: D.W. Sellen, Emory University, Atlanta.

Times: 2:00-2:30 PM Poster set-up.
2:30-4:00 PM Author of even-numbered posters present for questions.
4:00-5:30 PM Authors of odd-numbered posters present for questions.
5:30-6:00 PM Poster take-down.

44. Parity effects on female body composition among Karimojong agropastoralists of northeast Uganda. M. Kang, S.J. Gray, University of Kansas, Lawrence, H.A. Akol, Moroto, Uganda.
45. The health consequences of consanguineous marriage in Kuwait. Y. Al-Kandari, Kuwait University, Kuwait.
46. Infant and child mortality patterns in Åland, Finland. J.H. Mielke, University of Kansas, Lawrence.
47. Sex, hormones, biosocial context, and attention deficit hyperactivity (ADHD) disorder. J.C. Stevenson, D.C. Williams, Western Washington University, Bellingham, WA.
48. Perceived work and home stress affect diurnally changing blood pressure levels differently in African American and Caucasian women. G.D. James, State University of New York, Binghamton.
49. Elevated sleep blood pressure in working women from high risk ethnic groups: Japanese-American school teachers in Hawaii. D.E. Brown, S.L. Aki, P.S. Mills, M.B. Etrata, R. Kohagura, K. Smart, University of Hawaii, Hilo, HI, G.D. James, Binghamton University, NY.
50. Is the practice of the siesta an adaptation to disease? T.L. Barone, University of Nebraska, Omaha.
51. Coevolution of humans and their viruses. L.M. Van Blerkom, Drew University, Madison, NJ.

FRIDAY, APRIL 14, 2000 / SATURDAY, APRIL 15, 2000

SESSION 30 / SESSION 31

- 52. Paying the price of speech? An analysis of mortality statistics for choking on food. M. Clegg, L.C. Aiello, University College, London, UK.
- 53. High heels, halux valgus, Darwinian fitness, and sexual selection. E.O. Smith, Emory University, Atlanta, GA.
- 54. A disadvantage of being human: Poor posterior protection of the airway. J.S. Reidenberg, J.T. Laitman, Mount Sinai School of Medicine, New York, NY.
- 55. Assessing pigments in human skin and hair: New phenotypes and methodologies. M.D. Shriver, H. Norton, E. Parra, L. Jin, R.A. Kittles, Pennsylvania State University, University Park.
- 56. Variation in the timing and display of the human smile. K.L. Schmidt, Indiana University of Pennsylvania, Indiana, PA.
- 57. The effects of different brain indices on brain/behavior relationships: A within-species study of humans. P.T. Schoenemann, University of Pennsylvania, Philadelphia.
- 58. Cooperative big game hunting. M.S. Alvard, State University of New York, Buffalo.

SATURDAY MORNING, APRIL 15, 2000

SESSION 31: TEXAS A

PALEOANTHROPOLOGY VII: PRIMATE EVOLUTION. CONTRIBUTED PAPERS.

Chair: J. Kelley, University of Illinois, Chicago.

- 8:00 AM Craniodental variation in *Galagoides* and *Microcebus* and its implications for the paleotaxonomy of small-bodied Eocene primates. F.P. Cuzzo, University of Colorado, Boulder.
- 8:15 New specimens of *Copelemur* (Northarctidae, Primates) from the Wasatch Formation (Early Eocene), southwestern Wyoming: Implications for North American adapiform diversity. G.F. Gunnell, University of Michigan, Ann Arbor, E.R. Miller, University of North Carolina, Chapel Hill, K.M. Muldoon, University of Toronto, ON, Canada.
- 8:30 Diets of Fayum primates based on molar shearing crest analysis. E.C. Kirk, E.L. Simons, Duke University Medical Center, Durham, NC.
- 8:45 Mangabey diphyly revisited: Morphometric analysis of papionin cranial shape supports the molecular phylogeny. M. Singleton, New York College of Osteopathic Medicine, Old Westbury, NY.

- 9:00 New perspectives on the taxonomy and phylogeny of large-bodied hominoids from the middle Miocene of Kenya. B.R. Benefit, M.L. McCrossin, Southern Illinois University, Carbondale.
- 9:15 Locomotor diversity among large-bodied hominoids from the middle Miocene of Africa. M.L. McCrossin, B.R. Benefit, Southern Illinois University, Carbondale.
- 9:30 New dental remains of *Kenyapithecus africanus* from Maboko Island, Kenya support the congeneric status of *Kenyapithecus wickeri* and *K. africanus*. S.N. Gitau, B.R. Benefit, K.B. Johnson, M.L. McCrossin, Southern Illinois University, Carbondale, IL.
- 9:45 INTERMISSION
- 10:00 How many species at Paşalar? A study in molar morphology. L.A. Cook, L.C. Aiello, University College, London, UK, P.J. Andrews, Natural History Museum, London, UK.
- 10:15 Comparative paleocology of *Dryopithecus* and *Ankarapithecus*. R.S. Scott, University of Texas, Austin, R. Bernor, Howard University, Washington, DC, T. Kaiser, University of Greifswald, Germany.
- 10:30 Identification of a birth cohort in the Miocene hominoid fossil record. J. Kelley, C. Bulicek, University of Illinois, Chicago.
- 10:45 The locomotor anatomy of hominoid and hominid ancestors. D.S. Strait, B.G. Richmond, The George Washington University, Washington, DC, J.D. Polk, State University of New York, Stony Brook.
- 11:00 Phylogenetic information content of ontogenetic sequences. S.J. King, University of Massachusetts, Amherst.
- 11:15 Ecological zones and the visual system: The human visual pathway reflects an arboreal ancestry. J.A. Kaufman, Washington University, St. Louis, MO.
- 11:30 The evolution of the dentate nucleus in Hominoidea. C.E. Macleod, Simon Fraser University, Burnaby, BC, Canada, K. Zilles, A. Schleicher, Institut für Hirnforschung, Duesseldorf, Germany, K.R. Gibson, University of Texas Dental Branch, TX.
- 11:45 Brain language area evolution: Human-like pattern of cytoarchitectonic, but not gross anatomic, L>R hemispheric asymmetry of planum temporale homolog in *Macaca fascicularis*. P.J. Gannon, Mt. Sinai School of Medicine, New York, NY, NYCEP, New York University, NY, P.R. Hof, Mt. Sinai School of Medicine, New York, NY, NYCEP, N.M. Kheck, Mt. Sinai School of Medicine, New York, NY.

SESSION 32: TEXAS B

PALEOANTHROPOLOGY VIII/ HUMAN BIOLOGY VIII: "FROM BIPED TO STRIDER: THE EMERGENCE OF MODERN HUMAN WALKING". SYMPOSIUM.

Discussions of hominid bipedalism over the past several decades have been dominated by the often polarized debate over whether australopithecines were wholly terrestrial in habit or retained a significant degree of arboreality. There remains considerable difference of opinion whether bipedalism as practiced by australopithecines was equivalent to modern human walking, intermediate in nature, or unique. Preoccupation with these issues has resulted in the neglect of the significant point that modern human walking is more than simply locomoting on two legs. Anatomically modern humans display a distinctive anatomy selected for endurance distance walking and running. We believe it is time to shift attention to the emergence of modern human walking, characterized by the longitudinal arch, midfoot stability, heel and ball modifications that accompany a striding stiff-legged gait.

The aim of this symposium is to promote a multidisciplinary approach to the study of functional morphology and behavioral ecology of the adaptations distinguishing modern human bipedalism, incorporating both paleontological and neontological perspectives. What can we agree upon with regard to the changes in the bio-behavioral complex of hominid locomotor evolution? What are the implications for the enhancement and expansion of hominid mobility?

Organizers

and Chairs: D.J. Meldrum, Idaho State University, Pocatello, C.E. Hilton, University of New Mexico, Albuquerque.

- 8:00 AM Knuckle-walking and the origin of human bipedalism. D. Begun, University of Toronto, ON, Canada.
- 8:15 What the Stw 573 *Australopithecus* skeleton reveals about early hominid bipedalism. R.J. Clarke, J.W. Goethe-Universitat, Frankfurt am Main, Germany, University of the Witwatersrand Medical School, Johannesburg, South Africa.
- 8:30 New hypothesis on hominoid bipedalism. Y. Deloison, CNRS, Dynamique de l' evolution humaine, Paris, France.
- 8:45 Functional interpretation of the Laetoli footprints. P. Schmid, University of Zurich-Irchel, Switzerland.
- 9:00 Fossilized Footprints in the Ka'u Desert, Hawaii. D.J. Meldrum, Idaho State University, Pocatello.
- 9:15 Hindlimb adaptations associated with heel-strike plantigrady in hominoids. R.E. Wunderlich, James Madison University, Harrisonburg, VA, D. Schmitt, Duke University, Durham, NC.

SATURDAY, APRIL 15, 2000

SESSION 32 / SESSION 33

- 9:30 Effects of variation in crural index on the kinematics and kinetics of human walking. L.T. Gruss, D. Schmitt, Duke University, Durham, NC.
- 9:45 Exploring the locomotor system of a biped through a behavioral ecology and life history perspective. P.A. Kramer, University of Washington, Seattle.
- 10:00 Walking, having babies and keeping warm: Multiple selective pressures on human pelvic morphology. K. Rosenberg, University of Delaware, Newark.
- 10:15 INTERMISSION
- 10:30 The running-fighting dichotomy and hominid evolution. D.R. Carrier, University of Utah, Salt Lake City.
- 10:45 Head stabilization in human running: Implication for hominid evolution. D.M. Bramble, University of Utah, Salt Lake City.
- 11:00 Changing mobility patterns in incipient farming villages in the Tucson basin. M. Ogilvie, University of New Mexico, Albuquerque.
- 11:15 Age, sex, and resource transport in Venezuelan foragers. C.E. Hilton, University of New Mexico, Albuquerque, R.D. Greaves, Southern Methodist University, Dallas, TX.
- 11:30 DISCUSSANT: C. Ruff, Johns Hopkins University, Baltimore, MD, Neontological perspectives.
- 11:45 DISCUSSANT: L. Aiello, University College, London, Paleontological perspectives.

SESSION 33: TEXAS C

PRIMATES X / SKELETAL BIOLOGY X: PRIMATE BIOLOGICAL VARIATION. SKULL MORPHOLOGY. CONTRIBUTED PAPERS.

Chair: M.F. Teaford, Johns Hopkins University, Baltimore, MD.

- 8:00 AM Expression of paranasal sinuses in New World monkeys: Application to phyletic evaluation. S. Marguez, Mt. Sinai School of Medicine, NY, CUNY, NYCEP, Lehman College, NY, P.J. Gannon, Mt. Sinai School of Medicine, NYCEP, E. Delson, CUNY, NYCEP, AMNH, Lehman College, NY, T.C. Rae, AMNH, University of Durham, UK, T. Koppe, University Griefswald, Germany, A. Silvers, M. Lawson, Mt. Sinai School of Medicine, NY, J.T. Laitman, Mt. Sinai School of Medicine, CUNY, NYCEP, AMNH.

SATURDAY, APRIL 15, 2000

SESSION 33 / SESSION 34

- 8:15 The unique lacrimal bulla within the nasal complex of gorillas: An accessory paranasal sinus? W. Lawson, Mt. Sinai School Med, S. Marquez, Lehman College, CUNY, NYCEP, A. Silvers, Mt. Sinai School Med, J.T. Laitman, Mt. Sinai School Med., CUNY, NYCEP, New York, P.J. Gannon, Mt. Sinai School Med., NYU, NYCEP, New York.
- 8:30 Definition of the "lateral recess" and cranial pneumatization in the Catarrhini. T.C. Rae, University of Durham, UK, T. Koppe, Ernst-Moritz-Arndt-Universität Greifswald, Greifswald, Germany.
- 8:45 Morphometric analysis of orbitotemporal angulation and the evolution of postorbital processes and bars in therian mammals. C.P. Heesy, State University of New York, Stony Brook.
- 9:00 Planum temporale asymmetry in common chimpanzees: A reappraisal. E. Gilissen, University of the Witwatersrand, Johannesburg, South Africa.
- 9:15 The PM plane and the facial "block:" New evidence for constraint on primate and hominid craniofacial shape. D.E. Lieberman, R.C. McCarthy, George Washington University, Washington, DC.
- 9:30 The phylogenetic implications of the early ontogeny of craniofacial growth and development in colobines using 3-D image analysis. C.W. Flattmann, New York University, New York.
- 9:45 Ontogeny and homoplasy in the papionin face. M. Collard, P. O'Higgins, University College London, UK.

SESSION 34: TEXAS C

PALEOANTHROPOLOGY IX: HOMINID PALEOBIOLOGY. CONTRIBUTED PAPERS.

Chair: R.J. Sherwood, University of Wisconsin, Madison.

- 10:15 AM *Paranthropus boisei*: A derived eurytope? B.A. Wood, D.S. Strait, The George Washington University, Washington, DC.
- 10:30 A measured approach to marks on bones. E. Johnson, Museum of Texas Tech University, Lubbock, P.J. Lewis, Duke University, Durham, NC, R. Strauss, Texas Tech University, Lubbock.
- 10:45 Ecological correlates of long-term stasis among African mammals of the Pliocene and Pleistocene. J.K. McKee, The Ohio State University, Columbus, OH.

SATURDAY, APRIL 15, 2000

SESSION 34 / SESSION 35

- 11:00 Strontium-calcium ratio analysis and dietary adaptations of early hominids from South Africa: A reevaluation of interpretive problems in light of new analyses. J.W. Wilson, R.H. Tykot, University of South Florida, Tampa, J.F. Thackeray, Transvaal Museum, Pretoria, South Africa.
- 11:15 Inferring hominid behavioral adaptations during Okote member times in the Koobi Fora region. S. Cachel, J.W.K. Harris, Rutgers University, New Brunswick, NJ, C.M. Monahan, Loyola University, Chicago, IL, M.J. Rogers, University of Nairobi, Kenya.
- 11:30 Hominin bone accumulation at Zhoukoudian: The role of large carnivores. R.L. Ciochon, University of Iowa, Iowa City, N.T. Boaz, International Institute for Human Evolutionary Research, Bend, OR, Xu Qinqi, Zhoukoudian International Research Center, IVPP, Beijing, China, Liu Ginyi, IVPP, Beijing, China.
- 11:45 Human paleodiet, carbon isotopes, and the canopy effect: Documenting the Neolithic in tropical Southeast Asia using tooth enamel apatite. J.S. Krigbaum, New York University, New York.

SESSION 35: EXECUTIVE SALON II

FORENSICS II: CONTRIBUTED PAPERS.

- Chair:* D.M. Glassman, Southwest Texas State University, San Marcos
- 8:00 AM Intra and inter-generational analyses of American facial tissue depths. G.A. Listi, Tulane University, New Orleans, LA, M.H. Manhein, Louisiana State University, Baton Rouge.
- 8:15 Forensic impact injuries in skeletal material. A. Galloway, University of California, Santa Cruz, R.T. Mason, Santa Cruz County Sheriff-Coroner's Office, CA.
- 8:30 The effect of high temperatures, sunlight and low humidity on carrion decomposition in the Chihuahuan Desert. R.N. Kasson, New Mexico State University, Las Cruces.
- 8:45 Bayesian forensic anthropology. L.W. Konigsberg, A.H. Ross, University of Tennessee, Knoxville.
- 9:00 Assessing the efficacy and pragmatism of "race" designation in human skeletal identification: A test of the FORDISC 2.0 program. S. Kosiba, University of South Florida, Tampa.
- 9:15 Mummy dearest: The identification and analysis of Jordan's first mummy. M.L. Lucas, University of Arkansas, Fayetteville, A.C. Aufderheide, University of Minnesota, Duluth, M. El-Najjar, Yarmouk University, Irbid, Jordan.

SATURDAY, APRIL 15, 2000

SESSION 35 / SESSION 36

- 9:30 A medieval mass grave from Denmark (1300-1350 AD). P. Bennike, University of Copenhagen, Denmark.
- 9:45 Forensic and anthropological aspects of variation in dental metrics in two contemporary Australian populations. A.L.S. Chiu, The University of Sydney, Australia.

SESSION 36: EXECUTIVE SALON II

GENETICS VI / PRIMATES XI: PRIMATE BIOLOGICAL VARIATION. CONTRIBUTED PAPERS.

Chair: A. Collins, University of Wisconsin, Waukesha and Madison.

- 10:15 AM Females control male reproductive success in wedge-capped capuchins, based on genetic and behavioral data. X. Valderrama, Columbia University, New York, J.G. Robinson, Wildlife Conservation Society, Bronx, NY, D.J. Melnick, Columbia University, New York.
- 10:30 Phylogenetic relationships within the lemur family Cheirogaleidae from mtDNA sequence analyses. J. Pastorini, Universität Zürich, Switzerland, P. Ehresmann, E. Zimmermann, Institut für Zoologie, TiHo, Hannover, Germany, R.M. Martin, Universität Zürich, Switzerland, M.R.J. Forstner, Southwest Texas State University, San Marcos, TX.
- 10:45 Molecular phylogeny of the Colobines. J.C. Morales, W. Wang, B.M.M. Zain, Columbia University, New York, C. Lehn, Texas A&M University, College Station, M.R.J. Forstner, Florida Atlantic University, Davie, D.J. Melnick, Columbia University, New York.
- 11:00 African ape nuclear phylogeography. M.I. Seaman, A.S. Deinard, K.K. Kidd, Yale University, New Haven, CT.
- 11:15 Estimating genetic relationships within primate populations using molecular genetic data. J.M. Cheverud, Washington University, St. Louis, MO., J. Rogers, Southwest Foundation for Biomedical Research, San Antonio, P. Morin, Axys Pharmaceuticals, South San Francisco, CA.
- 11:30 Genetics of expression of two dental traits in baboons. L.J. Hlusko, Pennsylvania State University, University Park, M.C. Mahaney, Southwest Foundation for Biomedical Research, San Antonio.
- 11:45 A quantitative trait locus on chromosome 12 influences adipocyte number in baboons. A.G. Comuzzie, L.J. Martin, S.A. Cole, M.C. Mahaney, J. Rogers, J.E. Hixson, J. Blangero, Southwest Foundation for Biomedical Research, San Antonio.

SESSION 37: ROSE GARDEN / ROSE GARDEN FOYER

PALEOPATHOLOGY V: POSTERS.

Chairs: P.M. Lambert, Utah State University, Logan, UT.

Times:	8:00-8:30 AM	Poster set-up.
	8:30-10:00 AM	Authors of even-numbered posters present for questions.
	10:30AM-12:00 PM	Authors of odd-numbered posters present for questions.
	12:00-12:30 PM	Poster take-down.

1. Mission San Juan de Capistrano, then and now: A re-evaluation of the impact of European Contact on Native American health in Texas. E. Miller, California State University, Los Angeles.
2. Temporal trends in mission populations: A comparison of pathological frequencies and long bone length at mission San Juan de Capistrano. J.R. Francis, The University of Texas, San Antonio.
3. De Tuin: Palaeodemography and life history on a 19th century mission station in the Northern Cape Province, South Africa. T.R. Peckmann, University of Cape Town Medical School, South Africa.
4. Biocultural synthesis of multiple disease processes in 19th century Dunning Poorhouse inmates. D.W. Steadman, Iowa State University, Ames.
5. Health and disease in 19th century San Francisco: Skeletal evidence from a forgotten cemetery. M.R. Buzon, P.L. Walker, F. Drayer, S. Kerr, University of California, Santa Barbara.
6. Analysis of sex differences in antemortem fracture rates among the Highland Park Skeletal Collection, Rochester, New York with special consideration of interpersonal violence. J.L. Muller, State University of New York, Buffalo.
7. Degenerative diseases of the spine in a 19th century poorhouse population. P.M. Williams, State University of New York, Buffalo.
8. Evidence of degenerative disc disease in Meroitic Nubians from Semna South, Sudan. W.E. Potter, University of New Mexico, Albuquerque.
9. Nonmetric variation of the sustentaculum tali and the incidence of arthritis as a measure of joint stability in the ankle. C. Lee, Arizona State University, Tempe.

10. A quantitative study of artificial cranial deformation: Bio-cultural behavior in Southwest prehistory. J.T. Watson, Wichita State University, KS.
11. Artificial cranial deformation on the Northwest Coast: The Pender Canal Site, British Columbia, Canada. D.A. Weston, University College, London, UK.
12. Decapitation and cremation: A southeast Alaskan burial practice reserved for warriors killed in battle. J.D. Irish, University of Alaska, Fairbanks.
13. Health on the periphery of the Aztec empire: The human remains from Xaltocan, Mexico. M.E. Danforth, University of Southern Mississippi, Hattiesburg.
14. Evidence of paleopathology in the Anasazi and Mogollon cultures derived from the Paul S. Martin osteological collection. E.H. Kimmerle, University of Tennessee, Knoxville, S.E. Nash, The Field Museum, Chicago, IL.
15. Evidence for violence-related trauma among Iron Age semi-nomadic populations from South Siberia. E. M. Murphy, Lagan Archaeological Research, Belfast, Northern Ireland.
16. Identification of cystic lesions in prehistoric skeletal remains from New York State. M.C. Solano, C.N. Ayott, State University of New York, Albany.
17. Violent injury and death in a Pueblo II-III sample from the southern piedmont of Sleeping Ute Mountain, Colorado. P.M. Lambert, Utah State University, Logan.
18. A rare case of periosteal osteosarcoma of the mandible from the Late Archaic Ward Site (McL-11), McLean County, Kentucky. R.P. Mensforth, J. Way-Mosakowski, K.E. Zeman, Cleveland State University, Cleveland.
19. The origin of treponematosi s in prehistoric Texas populations. D.E. Wilson, A.M. Wilson Associates, Barnstable, MA.
20. Preliminary assessment of Marfan syndrome in individuals from the Stanford-Meyer Human Anatomy Skeletal Research Collection. D.W. Stratmann, S.L. White, R.G. Franciscus, The University of Iowa, Iowa City.
21. Reiter's syndrome in a prehistoric burial from southern Indiana. M.C. Griffin, San Francisco State University, CA, R.M. Knoll, Moorhead State University, Moorhead, MN.
22. Histological examination of apparent stages of healing an cribra orbitalia: A new method using silicone casting material. D.B. Smay, G.J. Armelagos, Emory University, Atlanta.

23. A comparison of osteoarthritis in the appendicular joints of males from the Hamann-Todd and Terry Collections. J.J. Schultz, University of Florida, Gainesville.
24. Effects of age and gender on the frequencies of spondylolysis and *spina bifida occulta* in a skeletal collection from Golovin Bay, Alaska. S.S. Legge, University of Alaska, Fairbanks.
25. Vertebral osteophytosis/ degenerative disc disease (VO/DDD) in the rhesus monkeys of Cayo Santiago. A.M. Cerroni, University of Toronto, ON, Canada, M.D. Gryn timer, University of Toronto, Mount Sinai Hospital, Toronto, ON, Canada.

SESSION 38: ROSE GARDEN / ROSE GARDEN FOYER

SKELETAL BIOLOGY XI / PALEOPATHOLOGY VI: "UNDERSTANDING TAPHONOMIC PROCESSES: NEW TECHNIQUES IN BIOARCHAEOLOGY". POSTER SYMPOSIUM.

The new millennium has given us cause to reflect on humanity's numerous achievements. For those of us who explore ancestral lifeways, advances in understanding taphonomic processes have helped to illuminate subtle alterations on human skeletal remains and their meanings. The complexities surrounding the reconstruction of past lifeways of archaeological skeletal material is often exasperated by the confusion that can arise in determining the cause of skeletal changes. This is particularly acute when researchers attempt to classify skeletal changes to specific categories such as trauma, "cannibalism," ritual mortuary preparation, carnivore damage, burning, and water, soil, and root damage. Recent advances in bioarchaeology, taphonomic, and forensic sciences have added a significant level of required precision in the evaluation of data used in drawing inferences regarding human behavior from skeletal material. This symposium allows researchers to present their findings on interdisciplinary techniques and new methodologies in the analysis of human remains from archaeological contexts.

Organizers

and Chairs: V.R. Perez, University of Massachusetts, Amherst, D.L. Martin, Hampshire College, Amherst, MA.

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| Times: | 8:00-8:30 AM | Poster set-up. |
| | 10:30 AM-12:00 PM | Authors present for questions. |
| | 12:00-12:30 PM | Poster take-down. |
26. Taphonomic processes or mortuary preparation: Insights from New Mexico assemblages. N.J. Akins, Museum of New Mexico, Santa Fe.
 27. Cutmarks and drillholes: A study of the cultural modification of human remains from central California. V.A. Andrushko, D.L. Grady, K.A. Latham, A. Pastron, Archeo-Tec, Oakland, CA.

28. Cultural modifications to human and faunal cremated bone: The role of fauna in Northeastern Late Archaic cremation features. L. Barbian, National Museum of Health and Medicine, Armed Forces Institute of Pathology.
29. Comparative human and mammalian taphonomy at the Richard's site, Ohio. H.J.H. Edgar, T.S. Barette, The Ohio State University, Columbus.
30. Microscopic documentation of bone modification. W.H. Gilbert, University of California, Berkeley.
31. Taphonomic considerations in bioarchaeological research in the Mariana Islands of western Micronesia. D.B. Hanson, Forsyth Institute, Boston.
32. Tetracycline labeling and bone preservation in ancient Nubian populations. M. Krafeld-Daugherty, G.J. Armelagos, Emory University, Atlanta.
33. PIXE analysis of trace elements in pre-Columbian Tlatelolco teeth and the relationship to colored teeth. Diagenetic alterations or traumatic events? J. Mansilla, Direccion de Anthropologia Física, INAH, Mexico City, C. Solis, Instituto de Física, UNAM, Mexico City, M.E. Chavez, Direccion de Anthropologia Física, INAH, Mexico City.
34. Taphonomy of a large collective tomb from a Bronze Age population from Tell Abraq, United Arab Emirates. M.M. Margolis, Fort Lewis College, Durango, CO, D.L. Martin, P.K. Stone, M.J. Kennis, A.M. Mickowski, Hampshire College, Amherst, MA.
35. Human bone instruments from Central Mexico during the Formative period. P. Ochoa, C. Pijoan, J. Mansilla, Direccion de Anthropologia Física, INAH, Mexico City.
36. Variation in patterns of bone modification at La Quemada (AD 600-900). V.R. Perez, University of Massachusetts, Amherst, D.L. Martin, Hampshire College, Amherst, MA, B.A. Nelson, Arizona State University, Tempe.
37. Postsacrificial processing of the human body in some prehispanic skeletal samples from Mexico. C. Pijoan, J. Mansilla, Direccion de Anthropologia Física, INAH, Mexico City.
38. Veneration or violence: A Midwestern perspective of postmortem cultural modification of human bone. S.J. Schermer, R.M. Lillie, Office of the State Archaeologist, University of Iowa, Iowa City.
39. Bioarchaeological analysis of osseous remains cultural modified. J.A. Talavera, J.M. Rojas, E. García, Direccion de Anthropologia Física, INAH, Mexico City.
40. Evaluating models of cultural taphonomy as possible agents of a multiple burial. D. To, Arizona State University, Tempe.

SESSION 39: ROSE GARDEN / ROSE GARDEN FOYER

DENTAL ANTHROPOLOGY III: POSTERS.

Chair: B.E. Hemphill, California State University, Bakersfield.

Times:	8:00-8:30 AM	Poster set-up.
	8:30-10:00 AM	Author of even-numbered posters present for questions.
	10:30 AM – 12:00 PM	Authors of odd-numbered posters present for questions.
	12:00-12:30 PM	Poster take-down.

41. Stable isotope ratios and dental health on the island of Lesbos, Greece: Evidence for diet and lifeway. S.J. Garvie-Lok, University of Calgary, Alberta, Canada.
42. Determining human migration in the Florida Archaic by strontium isotope ($^{87}\text{Sr}/^{86}\text{Sr}$) analysis of tooth enamel. R.L. Quinn, University of Florida, Gainesville.
43. Gross wear and molar morphology in *Alouatta palliata*: A preliminary study using dental topographic analysis. M.D. Williamson, P.S. Ungar, University of Arkansas, Fayetteville, M.F. Teaford, Johns Hopkins University, Baltimore, MD, K.E. Glander, Duke University Primate Center, Durham, NC.
44. The relationships of microwear scratches and pits to occlusal macrowear. C.W. Schmidt, S.P. Nawrocki, University of Indianapolis, IN.
45. The influence of age and sex on dental microwear patterns in baboons living in the Awash National Park, Ethiopia. P. Nystrom, University of Sheffield, UK, J.E. Phillips-Conroy, Washington University Medical School, St. Louis, MO, C.J. Jolly, New York University, NY.
46. Unusual non-occlusal dental wear facets in prehistoric Sudanese. K.D. Gordon, Smithsonian Institution, Washington, DC, A. Coppa, Università "La Sapienza", Rome, Italy.
47. Microwear of mandibular canines of Late Stone Age and modern Japanese. T. Hojo, University of Occupational and Environmental Health, Kitakyushu, Japan.
48. A comparison of permanent tooth formation in two ethnic groups (4 to 9 years) living in London, UK. H.M. Liversidge, T. Speechly, St. Bartholomew's & The Royal London, QMW, University of London, UK.

SATURDAY, APRIL 15, 2000

SESSION 39 / SESSION 40

49. On reported differences between histological and radiological studies of tooth calcification in chimpanzees. K.L. Kuykendall, University of the Witwatersrand, Johannesburg, South Africa.
50. A new method of measuring 3-D internal dental dimensions. E.J. Smith, S.W. Simpson, Case Western Reserve University School of Medicine, Cleveland, OH.
51. Tissue contributions to intergroup differences in human deciduous molar crown sizes. E.F. Harris, University of Tennessee, Memphis.
52. Temporal patterning of enamel hypoplasias: A study from the Larson site (39WW2), Walworth County, South Dakota. C.S. Sparks, University of Tennessee, Knoxville.
53. Dental health of slaves from the cemetery of Ponte di Ferro near ancient Poseidonia (Paestum) in Italy, 6th-4th c BCE. Living conditions or fluorosis? R.J. Henneberg, University Adelaide, Australia, G. Avagliano, Museo Archeologico di Paestum, Italy.
54. Diet and dental health of elites at the Maya Site of Chau Hiix, Belize. G.D.G. Wrobel, Indiana University, Bloomington.
55. Agriculture and dental caries? The case of rice in prehistoric Southeast Asia. K. Domett, N. Tayles, K. Nelsen, University of Otago, Dunedin, New Zealand.

SATURDAY AFTERNOON, APRIL 15, 2000

SESSION 40: TEXAS A

SKELETAL BIOLOGY XII / PALEOPATHOLOGY VII: "OLD WORLD AND NEW WORLD PERSPECTIVES ON BIOARCHAEOLOGY". SYMPOSIUM.

This symposium presents a series of papers highlighting new developments in bioarchaeology from Old World and New World perspectives. The papers focus on approaches to dietary, environmental, health, population history, paleodemography, and behavioral reconstruction and interpretation. These approaches involve new and novel methods of analysis in the areas of morphometric variation, ancient DNA, elements and stable isotopes, biomechanics, tooth use, health, and demographic variation in the human past.

Organizers

and Chairs: C. S. Larsen, University of North Carolina, Chapel Hill, M.Schultz, University of Göttingen, Germany

Co-sponsored by the American Association of Physical Anthropologists and the Gesellschaft für Anthropologie

- 1:00 PM History, population structure and time: New approaches for understanding biological change in the Americas. J.F. Powell, University of New Mexico, Albuquerque.
- 1:15 A study of mtDNA of early Holocene North American skeletons. D.G. Smith, R.S. Malhi, J.A. Eshleman, B.A. Schultz, University of California, Davis.
- 1:30 Probability of genotyping of the polymorphic apolipoprotein E (APOE) in ancient human DNA samples. I. Wiechmann, G. Grupe, Ludwig-Maximilians-University, Munich, Germany.
- 1:45 The identification of foreigners in mortuary contexts using oxygen-isotope ratios: Some Mesoamerican examples. C.D. White, M.W. Spence, F.J. Longstaffe, The University of Western Ontario, Canada.
- 2:00 Strontium isotope ratio measurements in prehistoric Austrian human bone samples using high-resolution inductively-coupled plasma spectrometry (HR-ICPMS). M. Teschler-Nicola, T. Prohaska, C. Latkoczy, F. Gerold, M. Watkins, G. Stingeder, Natural History Museum and University of Agricultural Sciences, Vienna, Austria.
- 2:15 Heavy metal burden in ancient miners and metal workers--biomonitoring through archaeometry. H. Schutkowski, University of Göttingen, Germany.
- 2:30 Relationship of diet and activity in Spanish Florida: Isotopic and structural concordance. C.S. Larsen, University of North Carolina, Chapel Hill, C.B. Ruff, Johns Hopkins University, Baltimore, MD, D.L. Hutchinson, East Carolina University, Greenville, NC, M.J. Schoeninger, University of Wisconsin, Madison.
- 2:45 INTERMISSION
- 3:00 The Kazartepe from Miletus-- A necropolis for Hellenistic athletes? K. Kreutz, M. Kunter, University of Giessen, Germany.
- 3:15 Tooth use and microwear in prehistoric North America: The perspective from scanning electron microscopy. M.F. Teaford, Johns Hopkins University, Baltimore, MD, C.S. Larsen, University of North Carolina, Chapel Hill, D.L. Hutchinson, East Carolina University, Greenville, NC.
- 3:30 Infectious diseases of subadult age in prehistoric and early historic Europe and the Near East: Etiology and epidemiology of diseases. M. Schultz, P. Carli-Thiele, T.H. Schmidt-Schultz, University of Göttingen, Germany.
- 3:45 A Geographic Information System analysis of variation in health and nutrition in the Western Hemisphere. R.H. Steckel, Ohio State University, Columbus, P.L. Walker, N.M. Craig, University of California, Santa Barbara.

SATURDAY, APRIL 15, 2000

SESSION 40 / SESSION 41

4:00 Large population profiles--palaeodemographic evidence from the Near East Bronze Age. U. Wittwer-Backofen, University of Giessen, Germany, A. Kemkes-Grottenthaler, University of Mainz, Germany.

4:15 DISCUSSION

SESSION 41: TEXAS B

PALEOANTHROPOLOGY X: EVOLUTION OF THE GENUS HOMO. CONTRIBUTED PAPERS.

Chair: M.H. Wolpoff, University of Michigan, Ann Arbor.

1:00 PM New methods for evaluating the potential impact of character dependencies on hominid cladograms. D. Degusta, University of California, Berkeley.

1:15 The status of early *Homo*. R. J. Sherwood, University of Wisconsin, Madison, R.L. May, Morningside College, Sioux City, Iowa.

1:30 The newly recovered Poloyo hominin (PL-1) from Java. K. Mowbray, AMNH, New York, Rutgers University, New Brunswick, NJ, S. Márquez, Mount Sinai School of Medicine, New York, S.C. Antón, University of Florida, Gainesville, C.C. Swisher III, Berkeley Geochronology Center, CA, T. Jacob, Gadjah Mada University, Yogyakarta, Indonesia, G.J. Sawyer, AMNH, New York, D. Broadfield, J.T. Laitman, Mount Sinai School of Medicine, New York, R.L. Holloway, Columbia University, New York, E. Delson, AMNH, New York, Lehman College, Bronx, NY, I. Tattersall, American Museum of Natural History, New York.

1:45 The endocast of Poloyo 1 (PL-1), a new *Homo erectus* from Java. D.C. Broadfield, Mount Sinai School of Medicine, New York, NYCEP, R.L. Holloway, NYCEP, Columbia University, New York, S. Marquez, J.T. Laitman, Mount Sinai School of Medicine, New York, NYCEP, T. Jacob, Gadjah Mada University, Yogyakarta, Indonesia, K. Mowbray, Rutgers University, New Brunswick, NJ.

2:00 1999 excavations in the Rancah District, West Java, Indonesia. A. Kramer, J. M. Elam, University of Tennessee, Knoxville, T. Djubiantono, Archaeological Research and Development Center, West Java, Indonesia, F. Aziz, Quaternary Geology Laboratory, Bandung, West Java, Indonesia, W. E. Hames, Auburn University, Auburn, AL.

2:15 The question of speciation in *Homo erectus* revisited I: The metric evidence. J. H. Kidder, A.C. Durband, University of Tennessee, Knoxville.

2:30 The question of speciation in *Homo erectus* revisited II: The non-metric evidence. A.C. Durband, J.H. Kidder, University of Tennessee, Knoxville.

SATURDAY, APRIL 15, 2000

SESSION 41 / SESSION 42

- 2:45 Exo- and endocranial morphometrics and the implications for mid-Pleistocene crania descriptions. H. Seidler, K. Schäfer, H. Prossinger, G.W. Weber, Institute of Anthropology, Vienna, Austria.
- 3:00 INTERMISSION
- 3:15 Comparing craniofacial growth in modern humans, Neandertals, bonobos and chimpanzees using nonlinear piecewise regression. F.L. Williams, University of Massachusetts, Amherst.
- 3:30 The male Aurignacian crania from the Mladec caves, Moravia. M.H. Wolpoff, University of Michigan, Ann Arbor, D.W. Frayer, University of Kansas, Lawrence, M. Oliva, J. Jelinék, Moravian Museum, Anthropos Institute, Brno, Czech Republic.
- 3:45 Lagar Velho 1. E. Trinkaus, Washington University, St. Louis, MO, J. Zilhão, Instituto Português de Arqueologia, Lisbon, C. Duarte, Instituto Português do Patrimóni Arquitectónico, Lisbon, T.W. Holliday, Tulane University, New Orleans, C.B. Ruff, Johns Hopkins University School of Medicine, Baltimore, MD.
- 4:00 Morphological affinities of the Qafzeh 9 carpometacarpal articulations. W.A. Niewoehner, University of New Mexico, Albuquerque.
- 4:15 Separating the baby from the bathwater: Facial vs. neurocranial characters and origin of modern humans. R.C. McCarthy, The George Washington University, Washington, DC.
- 4:30 Facial projection and the origin of modern humans. B.M. McBratney, R.C. McCarthy, D.E. Lieberman, The George Washington University, Washington, DC.
- 4:45 Human origins, ancient and modern: Implications of computer models. K.P. Wessen, C.E. Oxnard, University of Western Australia, Nedlands, Australia.

SESSION 42: TEXAS C

PRIMATES XII: BIOLOGICAL VARIATION. JAWS, TEETH AND ALLOMETRY. CONTRIBUTED PAPERS.

Chair: S.R. Leigh, University of Illinois, Urbana.

- 1:00 PM Transverse masticatory movement and symphyseal fusion: Evidence from artiodactyl occlusal wear facets. A.S. Hogue, Northwestern University Medical School, Chicago, IL, M.J. Ravosa, Northwestern University Medical School, Field Museum of Natural History, Chicago, IL.

- 1:15 Comparative functional morphology of the mandibular condyle between anthropoid and strepsirrhine clades. C.J. Vinyard, Duke University, Durham, NC.
- 1:30 Outline-based morphometrics and shape variation in the primate mandibular condyle. T.M. Cole III, University of Missouri, Kansas City, C.E. Wall, Duke University, Durham, NC.
- 1:45 Gnathic morphology and feeding ecology in papionin primates. D.J. Daegling, California College of Podiatric Medicine, San Francisco, W.S. McGraw, The Ohio State University, Mansfield.
- 2:00 The mechanics of tree-gouging in *Callithrix jacchus*. S.H. Williams, C.J. Vinyard, C.E. Wall, Duke University Medical Center, Durham, NC.
- 2:15 Dynamics of canine development in baboons and mangabeys. S.R. Leigh, University of Illinois, Urbana.
- 2:30 The ontogeny of canine dimorphism in extant hominoids. G.T. Schwartz, The George Washington University, NMNH, Smithsonian Institution, Washington, DC, C. Dean, University College, London, UK.
- 2:45 INTERMISSION
- 3:00 Dental development and the life histories of primates. L.R. Godfrey, University of Massachusetts, Amherst, K.E. Samonds, W.L. Jungers, State University of New York, Stony Brook.
- 3:15 The relationship of life history variables to dental development in catarrhines. W. Dirks, New York University, New York.
- 3:30 Variance dimorphism in primates. J. M. Plavcan, New York College of Osteopathic Medicine, Old Westbury, NY.
- 3:45 Sex ratio, operational sex ratio and body size dimorphism: Phylogenetic and nonphylogenetic tests of association. E.H. Harmon, C.A. Lockwood, Arizona State University, Tempe.
- 4:00 Complex allometry of brain size scaling among mammals. B.R. Gelvin, California State University, Northridge, G.H. Albrecht, University of Southern California, Los Angeles, J.M.A. Miller, University of California, Los Angeles.
- 4:15 Inheritance of body size in rhesus macaques from Cayo Santiago. L.A.P. Kohn, Washington University, St. Louis, MO, J.E. Turnquist, M.J. Kessler, J. Berard, Caribbean Primate Research Center, University of Puerto Rico, Puerto Rico.
- 4:30 Sex-appropriate estimators of body mass. A.D. Gordon, University of Texas, Austin.

SATURDAY, APRIL 15, 2000

SESSION 42 / SESSION 43

- 4:45 Allometry and size control in primates morphometrics. B.T. Shea, Northwestern University, Chicago, IL.

SESSION 43: EXECUTIVE SALON II

HUMAN BIOLOGY IX: HUMAN BIOLOGICAL VARIATION - ADAPTATION AND REPRODUCTION. CONTRIBUTED PAPERS.

Chair: M. Lampl, Emory University, Atlanta, Ga.

- 1:00 PM Reproductive histories and life history of Bokora and Matheniko Karimojong women of northeast Uganda. S.J. Gray, University of Kansas, Lawrence, H.A. Akol, Moroto, Uganda.
- 1:15 Human reproduction, the evolution of the brain, and fat storage. J.B. Lancaster, University of New Mexico, Albuquerque.
- 1:30 Preliminary data on impaired placentation during pregnancy at high altitude: Is the placenta a target of natural selection? S. Zamudio, C. Blanford, A. Grilli, P. Lee, M.C. Tissot Van Patot, University of Colorado, Denver, University of Colorado Health Sciences Ctr., Denver.
- 1:45 Gender differences in the work of Aymara children at high altitude. I. Sartori-Miller, University of Washington, Seattle.
- 2:00 Ecological correlates of diurnal variation in gonadal and adrenal activity in rural Bolivian Aymara men. J.F. Stallings, Emory University, Atlanta, GA, V.J. Vitzthum, State University of New York, Binghamton, C.M. Worthman, Emory University, Atlanta, GA.
- 2:15 Prospective longitudinal study of menstrual patterns in an agropastoral Aymara population. V.J. Vitzthum, State University of New York, Binghamton, H. Spielvogel, E. Caceres, Instituto Boliviano de Biología de Altura, La Paz, Bolivia.
- 2:30 Exercise performance and menstrual cycle phase in high altitude native women at 3,600 m. T.D. Brutsaert, State University of New York, Albany, H. Spielvogel, E. Caceres, M. Araoz, Instituto Boliviano de Biología de Altura, La Paz, Bolivia, R. Chatterton, Northwestern University, Chicago, IL, V.J. Vitzthum, State University of New York, Binghamton.
- 2:45 INTERMISSION
- 3:00 Hemoglobin concentration of Ethiopians at 3530m. C.M. Beall, M.J. Decker, K.P. Strohl, I. Kushner, Case Western Reserve University, Cleveland, OH, G.M. Brittenham, Columbia University, New York, NY, L.A. Almasy, J. Blangero, Southwest Foundation for Biomedical Research, San Antonio, A. Gebremedhin, Addis Ababa University, Ethiopia.

SATURDAY, APRIL 15, 2000

SESSION 43 / SESSION 44

- 3:15 Fetal growth patterns: Responsivity and adaptation. M. Lampl, Emory University, Atlanta, GA, D.E. Walrath, University of Pennsylvania, Philadelphia, P. Jeanty, Vanderbilt University, Nashville, TN.
- 3:30 Variation in age at weaning in pre-industrial societies. D.W. Sellen, D.B. Smay, L. Libaridian, Emory University, Atlanta, GA.
- 3:45 Meat-sharing among the marine foragers of Lamalera: An anthropometric test. D.A. Nolin, M.S. Alvard, State University of New York, Buffalo.
- 4:00 Growth discordance as a risk factor for asthma in young children. K.B. Held, University of Oklahoma, OK.
- 4:15 The premenopausal potentiation of atherosclerosis and coronary heart disease (CHD); a hypothesis derived from observations on monkeys. J.R. Kaplan, S.B. Manuck, Wake Forest University School of Medicine, Winston-Salem, NC.
- 4:30 Variation in menstrual cycle length and cessation of menstruation in captive raised baboons. L.J. Martin, K.D. Carey, A.G. Comuzzie, Southwest Foundation of Biomedical Research, San Antonio.
- 4:45 Childhood milk consumption and age at natural menopause: A lifespan perspective. L.E. Leidy, K.L. Pearce, University of Massachusetts, Amherst.

SESSION 44: ROSE GARDEN / ROSE GARDEN FOYER

GENETICS VII / HUMAN BIOLOGY X: POSTERS

Chair: T.G. Schurr, Southwest Foundation for Biomedical Research, San Antonio.

<i>Times:</i>	1:00-1:30 PM	Poster set-up.
	1:30-3:00 PM	Authors of even-numbered posters present for questions.
	3:00-4:30 PM	Authors of odd-numbered posters present for questions.
	4:30-5:00 PM	Poster take-down.

1. A sex-based DNA analysis of 8,500 year old "ancestor" skulls from the Levant. M. Bonogofsky, University of California, Berkeley, R.S. Malhi, University of California, Davis.
2. Replacement versus continuity in the prehistoric North American Arctic as assessed by ancient mtDNA. M.G. Hayes, D.H. O'Rourke, University of Utah, Salt Lake City.
3. Ancient DNA analysis of a 2,000 year old Italian cemetery population. S.R. Saunders, McMaster University, Hamilton, Ontario, L. Bondioli, R. Macchiarelli, L. Pigorini National

- Museum of Prehistory and Ethnography, Rome, Italy, R. S. Garagna, C. Savore, University of Pavia, Italy, J.S. Wayne, D.Y. Yang, McMaster University, Hamilton, Ontario.
4. Giving voice to the vanished peoples of Newfoundland using ancient DNA. T.A. Keels, Ball State University, Muncie, IN, G.A. Pearson, University of Kansas, Lawrence.
 5. AmpliTaq Gold™ and ancient DNA samples. D.Y. Yang, McMaster University, Hamilton, Ontario, Canada, C. Savore, University of Pavia, Italy, J.S. Wayne, S.R. Saunders, McMaster University, Hamilton, Ontario, Canada.
 6. HLA in the Azores Archipelago: The presence of Mongoloid genes. A. Arnaiz-Villena, J. Bruges-Armas, L. Allende, J. Martinez-Laso, Universidad Complutense, Madrid, Spain.
 7. Genetic evidence on the origins of Indian caste populations. M. Bamshad, University of Utah, Salt Lake City, T. Kivisild, Tartu University, Estonia, W.S. Watkins, M.E. Dixon, University of Utah, Salt Lake City, B.B. Rao, J.M. Naidu, B.V.R. Prasad, Andhra University, India, A. Rasanayagam, University of Arizona, Tucson, S.S. Papiha, University of Newcastle-upon-Tyne, UK, R. Villems, Tartu University, Estonia, L.B. Jorde, University of Utah, Salt Lake City.
 8. Nomads of Mongolia: Y chromosome perspective. D. Tumen, National University of Mongolia, T.M. Karafet, University of Arizona, Tucson, Institute of Cytology and Genetics, Novosibirsk, Russia, M.F. Hammer, University of Arizona, Tucson.
 9. Y chromosome diversity in modern Sudan. L.J. Moore, University College, London, UK.
 10. MtDNA variation in Ethiopian populations: Evidence of regional diversification of East African groups. B.P. Donham, Emory University, Atlanta, T.G. Schurr, Southwest Foundation for Biomedical Research, San Antonio, D.L. Donham, Emory University, Atlanta, C. Panter-Brick, Durham University, UK, D.C. Wallace, Emory University, Atlanta.
 11. High-resolution admixture map of African Americans living in South Carolina. E.J. Parra, K. Hiester, G. Argyropoulos, W.T. Garvey, R.A. Kittles, N. Sylvester, D. Parrish-Gause, I. Kamboh, R.E. Ferrell, M.D. Shriver, Pennsylvania State University, University Park.
 12. Sequence diversity among haplogroup A mtDNA control region lineages in an Alaskan Na-Dene Population. J.G. Lorenz, Y-L. Wang, F.C. Romero, NIAAA, NIH, Bethesda, MD, R.A. Kittles, NIAAA, NIH, Bethesda, Maryland, Howard University, Washington, DC, D. Goldman, J.C. Long, NIAAA, NIH, Bethesda, MD.
 13. Population admixture in America: Concepts, estimations, and the direction of gene flow. M. Sans, B. Bertoni, Universidad de la República, Uruguay, P.C. Hidalgo, Instituto Superior de Ciencias Médicas de Villa Clara, Cuba.

14. Alternative demographic models for the colonization of the Americas. A.G. Fix, University of California, Riverside.
15. Expectations of MMD under a model of genetic drift. S.N. Byers, University of New Mexico, Albuquerque.
16. Isonymy in Kings County, NY, 1698-1810. A.F. Christensen, Rutgers University, Camden, NJ.
17. Predictive modeling of stabilization of balanced polymorphisms. T.C. Crawford, S.M. Ford, Southern Illinois University, Carbondale.
18. Genotype by smoking interaction: Evidence for effects on lipids and lipoproteins in Mexican Americans. S.A. Czerwinski, M.C. Mahaney, D.L. Rainwater, J.L. Vandeberg, J.W. Maccluer, J. Blangero, Southwest Foundation for Biomedical Research, San Antonio.
19. Familial resemblance in coronary heart disease risk. P.T. Katzmarzyk, York University, North York, Ontario, L. Perusse, Laval University, Ste-Foy, Québec, T. Rice, Washington University, St. Louis, MO, J. Gagnon, Laval University, Ste-Foy, Québec, J.S. Skinner, Indiana University, Bloomington, J.H. Wilmore, Texas A&M University, College Station, A.S. Leon, University of Minnesota, Minneapolis, C. Bouchard, Louisiana State University, Baton Rouge.
20. Large human panels for the study of genomic variation. P.K. Bender, L.H. Toji, C.M. Beiswanger, J.C. Leonard, J.C. Beck, R.T. Johnson, Coriell Institute for Medical Research, Camden, NJ.

SESSION 45: ROSE GARDEN / ROSE GARDEN FOYER

PRIMATES XIII: BEHAVIOR, ECOLOGY, ANATOMY AND PHYSIOLOGY. POSTERS.

Chair: D.P. Watts, Yale University, New Haven

<i>Times:</i>	1:00-1:30 PM	Poster set-up.
	1:30-3:00 PM	Authors of even-numbered posters present for questions.
	3:00-4:30 PM	Authors of odd-numbered posters present for questions.
	4:30-5:00 PM	Poster take-down.

21. Grip repertoire in captive western lowland gorillas (*Gorilla gorilla gorilla*) and its morphological correlates. S. Weinberger, Boston University, MA.
22. Object manipulation and tool use among brown capuchins in Suriname. S. Boinski, University of Florida, Gainesville.

23. Preliminary observations of positional behavior and support use in *Alouatta palliata* at Bocas del Toro, Panama, with comparison to *A. seniculus* at French Guiana. G.P. Aronsen, Yale University, New Haven, CT.
24. Behavioral and morphological investigation of hand laterality in colobine monkeys. A.E. Graff, J. Runestad Connour, Western Illinois University, Macomb.
25. Intraspecific variation in locomotor and postural behavior among three captive species of lemur (*Propithecus verreauxi coquerelli*, *Varecia variegata variegata* and *Eulemur coronatus*). M.S. Pasin, Northern Illinois University, DeKalb, L.L. Taylor, University of Miami, FL.
26. Handedness in a primate species *Cebus apella*. L.L. Fields.
27. Behavior, hormones, and immune correlates of socially stable/unstable housing in juvenile rhesus monkeys (*Macaca mulatta*). M.R. Clarke, L.S. Anderson, J. Porter, L.N. Martin, Tulane University, New Orleans, LA.
28. Testosterone and dominance in Kibale red colobus males (*Colobus badius tephrosceles*). S. Firos, Yale University, New Haven, CT.
29. Fecal testosterone and corticosterone levels and behavioral correlates in a group of five captive chimpanzees (*Pan troglodytes*). C. Sanz, Washington University, St Louis, MO, S. Monfort, National Zoological Park, Front Royal, VA, R. Fouts, Central Washington University, Ellensburg, WA.
30. Fecal cortisol and testosterone in relation to ancestry and behavior in hybrid male baboons. T.J. Bergman, Washington University, St. Louis, MO, P.L. Whitten, Emory University, Atlanta, GA.
31. Birth season cortisol levels in dispersing male *Propithecus verreauxi*. D.K. Brockman, Duke University, Durham, NC, P.L. Whitten, Emory University, Atlanta, GA, A.F. Richard, Yale University, New Haven, CT.
32. A behavioral and hormonal investigation of female directed male aggression in free-ranging black-handed spider monkeys (*Ateles geoffroyi*). C.J. Campbell, University of California, Berkeley.
33. The effect of habitat on fecal cortisol concentrations in squirrel monkeys (*Saimiri sciureus*). S.R. Tecot, University of Texas, Austin.
34. Mitochondrial DNA variation and male affiliation, and cooperation in wild chimpanzees. D.A. Merriwether, J. Mitani, C. Zhang, University of Michigan, Ann Arbor.

35. Patterns of fission-fusion social organization in the mantled howling monkey (*Alouatta palliata*) in Nicaragua. L.A. Winkler, University of Pittsburgh, Titusville, PA.
36. Range size and territoriality among white-handed gibbons (*Hylobates lar*) in Khao Yai National Park, Thailand. T.Q. Bartlett, Dickinson College, Carlisle, PA.
37. Patterns of habitat use for the mantled howler monkey, *Alouatta palliata*, on Isla Colon, Bocas del Toro Province, Panama. K.D. Fish, University of Colorado, Boulder, E.P. Riley, University of Georgia, Athens, M.L. Sauther, University of Colorado, Boulder.
38. Variability in howler monkey choice of sleeping and resting sites. B.W. Welker, G.V. Hunt, State University of New York, Geneseo.
39. Mechanisms of female dispersal in a female-bonded species. J.G. Robinson, Wildlife Conservation Society, Bronx, New York, X. Valderrama, D.J. Melnick, Columbia University, New York.
40. Morphology and population density of mona monkeys (*Cercopithecus mona*) on the Gulf of Guinea islands of São Tomé and Príncipe. M.E. Glenn, Humboldt State University, Arcata, CA, K.J. Bensen, K.F. Jensen, Windward Islands Research and Education Foundation, Bayshore, NY.
41. Defining Gombe Stream National Park, Tanzania as a complex hybrid zone for two guenon species: *Cercopithecus ascanius schmidtii* and *Cercopithecus mitis doggetti*. K.M. Detwiler, New York University and NYCEP, New York.
42. *Callimico goeldii* and *Saguinus*: Dietary differences between sympatric callitrichines in northern Bolivia. L.M. Porter, State University of New York, Stony Brook.
43. Sex differences in Balinese macaques (*Macaca fascicularis*) in temple-licking: Requirement of lactation or a taste for salt? S.M. Vellucci, A. Fuentes, Central Washington University, Ellensburg, WA, K.G. Suaryana, I.D.K. Harya Putra, Primate Research Center, Universitas Udayana, Bali, Indonesia.
44. Plant species with potential as food, nesting material, or tools at a proposed chimpanzee refuge site in Caddo Parish, Louisiana. R.C. O'Malley, J.L. Horvath, M. Croswell, W.C. McGrew, Miami University, Oxford, OH.
45. Food object manipulation by chimpanzees in Mahale Mountains National Park. S. Reece, M.W. Marzke, Arizona State University, Tempe, L.F. Marchant, W.C. McGrew, Miami University, Oxford, OH.

- 46. Taphonomic aspects of eagle predation of primates from Kibale Forest, Uganda. W.J. Sanders, J.C. Mitani, University of Michigan, Ann Arbor.
- 47. The fate of seeds dispersed by African apes and cercopithecines. J.E. Lambert, University of Oregon, Eugene.
- 48. Chimpanzee predation on red colobus monkeys at Ngogo, Kibale National Park, Uganda. D.P. Watts, Yale University, New Haven, CT, J.C. Mitani, University of Michigan, Ann Arbor.

SESSION 46: ROSE GARDEN / ROSE GARDEN FOYER

PRIMATES XIV: BIOLOGICAL VARIATION AND BEHAVIOR. "LIFE HISTORY OF HUMAN AND NON-HUMAN PRIMATE MALES IN COMPARATIVE PERSPECTIVE". POSTER SYMPOSIUM.

The evolution of human reproductive life histories has focused on menopause, with less attention paid to male reproductive life history. However, both theory and empirical evidence suggest that variation in male reproductive life histories across primate species may be more dramatic than that of females. The papers in this session bring together evidence on the male reproductive physiology, anatomy and behavior across a variety of nonhuman primates species and human populations in order to develop a comparative framework for understanding the evolution of male reproductive life history.

Organizer

and Chair: B. Campbell, Boston University, Massachusetts, Boston

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| Times: | 1:00-1:30 PM | Poster set-up. |
| | 3:00-4:30 PM | Authors present for questions. |
| | 4:30-5:00 PM | Discussion, Executive Salon 4 |
| | 5:00-5:30 PM | Poster take-down. |
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- 49. Impact of seasonal breeding on the life-history changes of morphological and hormonal parameters in two species of macaques. M. Muhlenbein, M. Murshison, S. Falkenstein, Tulane Regional Primate Research Center, LA, B. Campbell, Boston University, MA.
 - 50. An endocrine biomarker of life history in male primates. P.L. Whitten, Emory University, Atlanta, T.R. Turner, University of Wisconsin, Milwaukee.
 - 51. Testosterone and behavioral differences in fully developed and undeveloped wild Bornean orangutans (*Pongo pygmaeus pygmaeus*). C.D. Knott, Harvard University, Cambridge, MA.
 - 52. Hormonal and social correlates of life history in male muriquis (*Brachyteles arachnoides*). K.B. Strier, University of Wisconsin, Madison, T.E. Ziegler, Wisconsin Regional Primate Research Center, University of Wisconsin, Madison.

SATURDAY, APRIL 15, 2000

SESSION 46

- 53. Fecal cortisol levels and sociosexual behavior in wild male capuchin monkeys (*Cebus apella*). J.W. Lynch, University of Wisconsin, Madison, T.E. Ziegler, Wisconsin Regional Primate Research Center, Madison, K.B. Strier, University of Wisconsin, Madison.
- 54. Human male reproductive ecology: Development and life history. R. Bribiescas, Yale University, New Haven, CT.
- 55. Population variation in age-related decline of salivary testosterone and its relationship to body composition. B. Campbell, Boston University, MA, P. Ellison, S. Lipson, M. O'Rourke, Harvard University, Cambridge, MA, R. Bribiescas, Yale University, New Haven, CT, A. Uchida, Chiba University, Japan, G. Jasienkji, University of Krakow, Poland.
- 56. Get a life: Androgens and the comparative endocrine architecture of life history in men. C.M. Worthman, Emory University, Atlanta.
- 57. Gonadal-immune interactions in two populations of African men. W. Lukas, Boston University, MA.

SATURDAY EVENING, 5:30-7:30 PM, APRIL 15, 2000
ANNUAL AWARDS RECEPTION, RIVER PLAZA